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2025-2026

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Tsinghua University ——Press

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清华大学出版社重视国际化发展,积极开展版权贸易,每年从海外 几十家出版公司引进数百种图书版权,同时面向全球推广版权,进行国 际合作,已有1500余项30多个文种的各类图书版权输出到北美、欧洲和 亚洲国家。

清华大学出版社现出版学术期刊58种,其中38种为英文期刊,18 种被SCI或ESCI收录,以《纳米研究》和《清华大学学报(自然科学版)》为代表的一批高水平的国际化期刊在国内外的学术影响力日益增强。清华社研发和运营了拥有自主知识产权的国际化数字出版与传播平台SciOpen,服务国家科技自立自强和全球科技创新。

清华大学出版社在数字教育、数字阅读以及多形态多媒体出版物开 发和应用推广方面,积累了大量的经验,入选数字出版转型示范单位。 As an integral part of China's most prestigious university—Tsinghua University, Tsinghua University Press (TUP) was established in 1980 and is a first-class national comprehensive publisher, with a strong presence in China's higher education, science and technology and library purchase book markets.

Consisting of 8 book publishing branches, a journal center and a digital publishing center, TUP employs a staff of over 500 and publishes up to 3000 new titles each year. Our publications include academic monographs, college textbooks, trade books and children's books, covering a broad spectrum of subjects, such as STEM, social sciences, humanities and foreign language learning.

TUP attaches great importance to international development and engages actively in copyright trade. While introducing hundreds of titles from dozens of overseas publishers each year, we have also licensed over 1500 titles in more than 30 languages to publishers in North America, Europe and Asia in total to date.

TUP has released 58 academic journals, 38 are in English and 18 were indexed by SCI and ESCI. A number of our high-level international journals, represented by *Nano Research* and *Journal of Tsinghua University* (*Science and Technology*), have gained increasing global influence. TUP has also developed independently SciOpen, an international platform that provides cloud-based services for the production, publication, and dissemination of STM journals.

TUP is an experienced publisher in the development and marketing of e-learning, academic platforms, digital books and multimedia publications and have launched a number of well-received internet products, which were prized and supported by the State Administration of Press, Publication, Radio, Film and Television (SAPPRF).



目录 CONTENTS



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海外新出的清华大学出版社版权图书 New TUP Titles Published Overseas





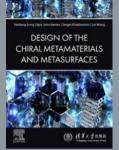
Key Technologies for the 6G Air Interface

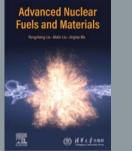


SPEECH SIGNAL PROCESSING BASED ON DEEP LEARNING IN COMPLEX ACOUSTIC ENVIRONMENTS XIAO-LEI ZHANG



S. Chair





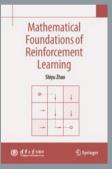


Design and Application of INTELLIGENT THERMALLY CONDUCTIVE MATERIALS Wei Peng

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From Human Factors Theory to Design Practice

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Study on the National Conditions of Modernization with Chinese Characteristics

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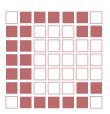
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文化 艺术 建筑 历史 Culture, Arts, Architecture and History

清华国学人物小传:哲学人物

A Short Biography of Tsinghua Scholars of **Chinese Learning: Philosophers**



作者:陈来 主编,高海波、赵金刚 副主编 Author: CHEN Lai (Editor), GAO Haibo, ZHAO Jingang (Deputy Editors) ISBN: 9787302666738 Publication Date: 8/1/2024 Page Count: 187

About the Book:

Established in 1925, Tsinghua University's Institute of Chinese Studies achieved remarkable scholarly accomplishments during its four-year operation through the convergence of eminent academics. This institute simultaneously served as an academic platform cultivating exceptional researchers in Chinese Studies, making distinctive contributions to the sustainable development of traditional Chinese culture. Tsinghua's accomplishments in this field stand as a flagship in modern Chinese Studies research. This volume chronicles philosophical pioneers cultivated by the Tsinghua Institute of Chinese Studies, including Gao Heng, Wu Qichang, Luo Genze, and other master scholars. Through concise narratives, it delineates their life trajectories, academic contributions, and institutional affiliations with Tsinghua. Grounded in comprehensive archival research and rigorous scholarship, this work provides an intellectual gateway for Chinese Studies enthusiasts, Tsinghua historiography researchers, alumni, and current students to comprehend Tsinghua's Sinological heritage.

About Author:

Chen Lai is Distinguished Professor of Humanities at Tsinghua University, concurrently serving as Director of the University's Institute of Chinese Studies. Recognized as the first Doctor of Philosophy cultivated in New China, he was granted doctoral supervision accreditation by the State Council's Academic Degrees Committee in 1993. His current appointments include: Member, National Committee of the Chinese People's Political Consultative Conference (2018 - present); Research Fellow, Central Research Institute of Culture and History (2012 - present); Member, State Council Academic Degrees Committee (2018 - present); Member, Ministry of Education Social Sciences Committee (2002 present); President, Chinese Society for the History of Philosophy (2008 - present); and Vice President, International Confucian Association (2014 - present).

文书档案中的历史

History in Documentary Archives



作者: 倪玉平 Author: NI Yuping ISBN: 9787302660552 Publication Date: 5/1/2024 Page Count: 315

About the Book:

The study of documentary texts has been a focal point of academic research for over a century. These voluminous records span diverse disciplines including linguistics, archaeology, ethnology, religious studies, literature, and art, offering novel data and analytical perspectives for historical inquiry. Through systematic examination of bamboo manuscripts, Dunhuang manuscripts, Song Dynasty Xu Weili documents, Yuan Dynasty Khara-Khoto texts, Huizhou archives, Guizhou Qingshuijiang records, Qing Palace archives, civil contract collections at Tsinghua University, Republican-era documents, Zhejiang Longquan judicial archives, European medieval charters, Indian archival materials, and Japanese historical manuscripts, this volume illuminates: the structural composition of archival sources; methodologies for documentary analysis; and their critical value in reconstructing historical narratives.

About the Author:

Ni Yuping obtained his Ph.D. in History from Peking University in 2003, receiving China's Top 100 Outstanding Doctoral Dissertation Award. His scholarly expertise focuses on Qing Dynasty fiscal history. Used to be Professor at Beijing Normal University's School of History, Dr. Ni currently holds multiple appointments at Tsinghua University as Professor of History, Doctoral Supervisor, and Associate Dean of the School of Humanities.

应县木塔"实习医生"手札

Field Notes from the "Apprentice Practitioners" of Yingxian Wooden Pagoda



作者:赵鹏、赵波、方国一 Author: ZHAO Peng, ZHAO Bo, FANG Guoyi ISBN: 9787302649816 Publication Date: 3/1/2024 Page Count: 284

About the Book:

Wooden Pagoda of Yingxian County, built in the 2nd year of the Liao Dynasty's Qingning era (1056 AD), stands as China's oldest surviving and only purely wood-framed pavilionstyle pagoda - a marvel of world architecture. Having endured nearly a millennium of earthquakes, 20th-century artillery fire, and problematic restorations, the pagoda now exhibits severe tilting and extensive damage. This book presents the research outcomes of 14 participants from the 2021 Conservation Resources for Architecture at Forbidden City. Under the guidance of instructors and experts, the trainees conducted about one-year onsite investigations since November 2020. Structured into five key research areas - historical documentation analysis, timber structural design techniques, Buddhist sculpture and polychrome craftsmanship, protective shelter design proposals, and additional conservation studies - the book systematically details the trainees' workflow, methodologies, and main findings. It encompasses holistic research scope, processing rare archival materials from the Society for Research in Chinese Architecture, extensive data acquired through advanced technologies (e.g., 3D laser scanning, photogrammetry, X-ray non-destructive testing, and Minimally invasive sampling analysis), in-depth as well as distinctive analyses and forwardlooking considerations for future conservation techniques. Representing cutting-edge contemporary research on the preservation of Wooden Pagoda of Yingxian County, the book features specialized knowledge and cultural connotations. It is suitable for both professionals in architectural history and cultural heritage conservation, and general readers.

About Author:

ZHAO Peng is the Senior Engineer and Deputy Director of Department of Ancient Architecture, Palace Museum.

ZHAO Bo is the curator and teaching and program assistant of Institute of Architectural History and Conservation under School of Architecture, Tsinghua University.

FANG Guoyi worked at Cultural Heritage Administration Yingxian County and Center for Wooden Pagoda of Yingxian County from 2016 to 2023.

守望与思索:人文清华讲坛实录VI

Observations and Reflections: Proceedings of Tsinghua Humanities Forum (VI)



作者: 张小琴、江舒远 Author: ZHANG Xiaogin, JIANG Shuyuan ISBN: 9787302677949 Publication Date: 12/1/2024 Page Count: 496

About the Book:

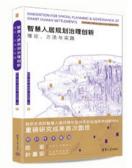
Initiated in early 2016 as Tsinghua University's flagship academic initiative, the "Tsinghua Humanities Forum" convenes eminent scholars to present seminal theories, original inquiries, and groundbreaking discoveries. This intellectual platform fosters sustained discourse in humanities scholarship while advancing cultural renewal and societal development. This volume compiles eight keynote addresses from the 2022-2023 forum sessions, featuring distinguished Tsinghua humanists: Educational theorist Shi Zhongying, psychologists Liu Jia and Peng Kaiping, artist Han Meilin, economist Tian Xuan, historian Ni Yuping, intellectual historian Wang Hui, and public administration scholar Wang Yahua. Complementing these lectures are comprehensive dialogues conducted by Zhang Xiaoqin, Professor of Journalism and Communication at Tsinghua University and renowned media host, with the aforementioned scholars. The published lectures demonstrate decades-long scholarly achievements in humanistic inquiry, while the accompanying interviews reveal the authors' intellectual trajectories and academic evolution. This dual approach enables readers to comprehend both the substance and rationale of their academic pursuits. As primary historical sources, these first-person narratives vividly document China's sociocultural transformations within specific historical contexts.

About the Author:

Zhang Xiaoqin, Ph.D., Professor at Tsinghua's School of Journalism and Communication, serves as Vice Chairperson of the Chinese Association for Journalism Education History. As a seasoned scholar-practitioner in media studies, she has concurrently held the position of Deputy Director at Tsinghua's Humanities Development Office since January 2016, overseeing strategic implementation of the Humanities Forum series.

智慧人居规划治理创新:理论、方法与实践

Innovation For Spatial Planning & Governance of Smart Human Settlements: Theory, Method and Practice



作者:田莉、杨滔、郑筱津、林文棋等 Author: TIAN Li, YANG Tao, ZHENG Xiaogin, LIN Wengi, et al. ISBN: 9787302664222 Publication Date: 8/1/2024 Page Count: 208

About the Book:

The book is a professional work serving the development of smart human settlements and spatial planning and governance. It is written by Technology Innovation Center for Smart Human Settlements and Spatial Planning & Governance. MNR (shortened as Innovation Center for Smart Human Settlements), co-built by Tsinghua University, Beijing Tsinghua Tongheng Urban Planning and Design Institute Co. and Tencent Cloud (Beijing). Relying on the research direction and research results of Innovation Center for Smart Human Settlements, this book discusses in depth the theoretical framework, key technologies and practice cases of smart habitats, systematically discusses the iceberg theory of smart habitats based on the complexity system, and introduces in detail the practical experience and technical application of this theory in the construction of digital intelligence of habitat, dynamic planning of habitat space and precise governance of habitat space. The book is used to respond to the intelligent exploration of the "five levels and three categories" system of territorial spatial planning, to promote the construction of intelligent territorial spatial planning that is "perceptible, capable of learning, good at governance, and adaptive", and to highlight the three major areas of territorial spatial 3D real scene, territorial spatial pattern optimization, and territorial spatial governance, to help achieve the goal of "the future of the human environment". It will help realize the goal of "high-quality development, highquality life and high-level governance". The book is suitable for researchers, government administrators, professionals and students in the field of smart human settlements and territorial spatial planning.

About Author:

TIAN Li is a professor at the School of Architecture, Tsinghua University and director of Center for Land Use and Housing Policy.

YANG Tao is an Associate Professor at the School of Architecture, Tsinghua University. ZHENG Xiaojin, Vice-President of Beijing Tsinghua Tongheng Urban Planning and Design Institute Co. and Senior Engineer (Professor Grade).

LIN Wenqi is a Senior Engineer at the School of Architecture, Tsinghua University.

社会资本参与老旧小区改造

Market Entities' Participation in the Renovation of Old Neighborhoods: A Study of Beijing Based on Cost-Benefit Analysis



作者: 唐燕、刘思璐、刘泓显、李岚清 Author: TANG Yan, LIU Silu, LIU Hongxian, LI Lanqing ISBN: 9787302676614 Publication Date: 12/1/2024 Page Count: 272

About the Book:

Based on the break-even relationship from the perspective of economics, this book creates a "cost-benefit" analysis framework, according to which it interprets the typical renovation projects of seven old neighborhoods in Beijing, including Jinsong North Neighborhood and Liuheyuan South Neighborhood. Through in-depth analysis of the specific "cost end" and "benefit end" structure of the renovation of different old neighborhoods, this book reveals the similarities and differences between two participation models (by "private business" and "SOEs"), the general and specific difficulties of each project, and then proposes the policy path of "cutting costs and increasing benefits" and institutional reform measures, both of which are designed attract social capital, thereby enlightening all sectors of society to overcome "fund shortage" in the renovation of old neighborhoods.

About the Author:

TANG Yan is a Tenured Professor at the School of Architecture, Tsinghua University and Doctoral Supervisor.

LIU Silu is a Master of Urban and Rural Planning, Tsinghua University, works at Beijing Municipal Institute of City Planning & Design.

LIU Hongxian is a Master of Urban and Rural Planning, Tsinghua University.

LI Lanqing is a PhD of Urban and Rural Planning, Tsinghua University.

城市更新制度建设:广州、深圳、上海的比较

The Innovation of Urban Regeneration Institutions in China: **Experience from Guangzhou, Shenzhen and Shanghai**



作者: 唐燕、杨东、祝贺 Author: TANG Yan, YANG Dong, ZHU He ISBN: 9787302631248 Publication Date: 10/1/2023 Page Count: 392

About the Book:

In recent years, urban renewal has been main concern for China and the exploration of corresponding system construction has gained momentum. Influenced by a new round of institution reform in 2018, the existent system and governing practice experienced a major adjustment in a short run.

The book revised and enriched largely on the basis of the first edition in 2019. It presents the institutional transformations in urban regeneration across Guangzhou, Shenzhen, and Shanghai following China's governmental restructuring. The book examines innovations in institutional frameworks, departmental division of labor and policy instruments, approaches to spatial governance and implementation pathways and persistent challenges in execution and systemic barriers across the three cities. Based on the framework of "Stakeholders-Funding-Space-Operations", the study proposes viable steps for institutional innovation in urban regeneration. It reflects the latest advancement of renewal system construction in three cities across the board, providing a reference for urban renewal. It serves as a summary of experience as well as a valuable guidance for urban planners, architects, policy makers and urban development managers, rather inspiring and practical.

About Author:

TANG Yan is an Associate Professor and Doctoral Supervisor at the School of Architecture, Tsinghua University and Humboldt Scholar.

YANG Dong is an Engineer from Architectural Design & Research Institute of Tsinghua University.

ZHU He is a Lecturer at the School of Architecture and Urban Planning, Beijing University of Civil Engineering and Architecture and Visiting Scholar at University College London.

当代乡村媒介空间转型

Courtyard Society: Derivation and Regeneration of the Living Space in Beijing Historic Areas



作者:石炀 Author: SHI Yang ISBN: 9787302612599 Publication Date: 8/1/2022 Page Count: 600

About the Book:

The longstanding and complex housing issues in Beijing's historic urban districts present an extraordinary challenge: safeguarding traditional architectural character while continuously improving living conditions.

Drawing on over a decade of field research, this book proceeds with vivid cases at three scales -- household, courtyard, and neighborhood -- to document current conditions and evolution of living spaces as well as everyday life in Beijing's historic districts since 2000 through accessible language and rich pictures and analyzes in-depth the root causes of urgent problems through related policy and practice. It also has a holistic analysis of population, housing, public funding input, retrofitting toolkit, tenant mix and governance. The study specifically expounds six critical issues and four typological boundaries, proposing regenerative strategies that emphasize balanced preservation approaches, welfare baseline guarantees and targeted improvements for vulnerable residents.

Finally, it presents the long-time research by Tsinghua University's School of Architecture and Department of Sociology, featuring typical cases like Shichahai precinct, Yandai Xiejie alleyway and Dashixiaoshi hutong. Providing groundbreaking methodologies for addressing systemic challenges in China's historic neighborhoods, areas and old residences, this work offers both immediate practical value and long-term theoretical significance.

About the Author:

SHi Yang is the Deputy Dean of the Research Institute for Scientific and Technological Development at Beijing University of Civil Engineering and Architecture, an Associate Professor. He concurrently serves as the Director of the Institute of Urban Design (IUD-ASC), Architectural Society of China. He has presided over more than 10 research projects, including the National Natural Science Foundation of China. He has been in charge of more than 20 planning, design and engineering projects in Beijing.

精神分析文论之马克思主义维度研究

Interrogating the Marxist Dimension in Psychoanalytic Literary Studies



作者:赵淳 Author: ZHAO Chun ISBN: 9787302664956 Publication Date: 7/1/2024 Page Count: 263

About the Book:

Psychoanalytic theory, as advanced by Lacan and Freud, probes the inner psyche while Marxism examines external material conditions-two distinct yet profoundly influential paradigms that have shaped modern intellectual inquiry through their respective cognitive frameworks, methodological approaches, and theoretical problematics. Although these formidable interpretive systems initially appear irreconcilable, their potential synthesis has attracted sustained scholarly engagement. This monograph investigates Lacanian psychoanalytic literary theory through Marxist lenses, structured through three fundamental inquiries: the ontological origins, essential nature, and social functions of literature. It demonstrates how Lacanian theorists have systematically transformed psychoanalysis from its biomedical and pathological roots into a multidisciplinary framework encompassing sociohistorical, cultural, philosophical, ethical, and religious dimensions, thereby establishing transhistorical dialogues with Marxist theoretical foundations. This volume serves as an interdisciplinary resource for higher education faculty and doctoral researchers in humanities and social sciences, as well as scholars specializing in psychoanalytic studies, philosophical inquiry, and cultural theory.

About Author:

Zhao Chun, Ph.D., holds the Jialing Chair Professorship at Sichuan International Studies University, serving as Doctoral Advisor in English Literature. His research concentrates on contemporary Western critical theory, particularly exploring intersections between psychoanalytic paradigms and cultural philosophy through literary-aesthetic analysis.

"是"与"真"——形而上学的基石

Being and Truth: The Conceptual Foundations of Metaphysics



作者:王路 Author:WANG Lu ISBN: 9787302660637 Publication Date: 4/1/2024 Page Count: 257

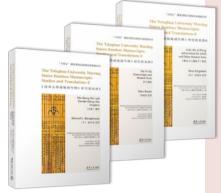
About the Book:

The pursuit of Being (to be) and Truth constitutes the essential core of Western philosophy, particularly metaphysics - an intellectual legacy sustained through millennia of philosophical continuity. This monograph systematically examines key Western philosophers' discourses on Being and Truth, including Parmenides, Plato, Boethius, Thomas Aquinas, Descartes, Locke, Kant, Hegel, and Heidegger. It reconstructs the historical trajectory of these metaphysical debates while advancing original interpretive arguments. The work contends that the term being should be rendered as "是" (to be) rather than "存在" (existence), requiring consistent interpretation through its copulative function, and that Truth must be translated as "真" (being-true) instead of "真理" (truth-principle), emphasizing its adjectival quality of veridicality. These translation principles fundamentally reshape our understanding of Western metaphysics, transcending mere linguistic concerns to address hermeneutic methodology.

About the Author:

Wang Lu, Professor of Philosophy and Doctoral Advisor at Tsinghua University's School of Humanities, serves as an Executive Council member of the Chinese Logic Society, Vice President of Beijing Logic Association, and a visiting scholar of Beijing Shusheng Academic Research Center.

The Tsinghua University Warring States Bamboo Manuscripts: Studies and Translations (Series)





About the Book:

In 2008, Tsinghua University of Beijing acquired a corpus of manuscripts written on bamboo slips from China's Warring States period (c. 300 BCE) and established the Research and Conservation Center for Unearthed Texts directed by renowned scholar Li Xueqin 李學勒(1933-2019) to edit and publish them. These Warring States bamboo slips are tremendously valuable historical artifacts, whose contents speak to the very core of traditional Chinese culture. This is an unprecedented discovery, which will inevitably attract the attention of scholars both here and abroad. It promises to have a lasting impact in many different disciplines, including but not limited to Chinese history, archaeology, paleography and philology.

The series brings together a group of international scholars to study and translate the texts. Volume 2 is devoted to texts from or related to the Shang Shu Exalted Scriptures, one of the most important texts from the Shang and Zhou dynasty. Volume 3 is devoted to texts related to Tang, the first king of the Shang dynasty, and his minister Yi Yin. Volume 6 is devoted to a set of historiographical texts including the Lady Wu of Zheng Admonished her Child and other stories from the Spring and Autumn period.

About Author:

Research and Conservation Center for Unearthed Texts, a Key Humanities Research Institute at Tsinghua University, has been successively designated as a MOE Key Research Base for Humanities and Social Sciences and the Lead Institution of the National Collaborative Innovation Center.

Edward L. Shaughnessy, Ph.D. in Literature from Stanford University, serves as Professor Emeritus of Ancient Chinese Studies at the Creel Center for Chinese Paleography, University of Chicago.

Zhou Boqun, Ph.D. from the University of Chicago, is Assistant Professor at the School of Chinese, University of Hong Kong.

Rens Krijgsman, DPhil in Oriental Studies from the University of Oxford, holds the position of Associate Professor at Tsinghua University.

南方有昆仑——时空流中的我和你

Kunlun Mountain in South



作者:张迈 Author: ZHANG Mai ISBN: 9787302672425 Publication Date: 11/1/2024 Page Count: 320

About the Book:

The marble of Monte Altissimo: Michelangelo took a block, chiseled away the unneeded parts, and created David. Similarly, the author has pruned away the extraneous branches of over half a century's worth of growth stories, learning experiences, and journeys of peace to craft this book's two series-Spiritual Realm: Landscapes and City of Unrestrained Freedom-hoping to present within these pages the footprints of a time-traveling voyager, shared with kindred spirits. The Spiritual Realm: Landscapes series features 18 renowned mountains, while City of Unrestrained Freedom includes 27 historic Chinese cities, with significant space devoted to Shanghai, Wenzhou, Beijing, and Ganzhou. When writing about these landscapes, cities, and the people of his homeland, the author explores the intersection of sports, education, and cultural tourism, notably focusing on Dingnan-the host of the first "No.1 Sport Group" Sports Season.

About the Author:

Zhang Mai, born in Wenzhou, raised in Shanghai, and now residing in Lisbon, is a freelance writer, financial professional, global traveler, and sports commentator. He serves as the Football Development Consultant for Dingnan County (a national football reform demonstration base) and is the founder of the No.1 Sport Group Federation.

清华通识荣誉课程案例集

Tsinghua Honors Courses of General Education: A Case Study Collection



作者: 主编 彭刚 副主编 杨帆 Author: PENG Gang (Editor), YANG Fan (Associate Editor) ISBN: 9787302667100 Publication Date: 8/1/2024 Page Count: 300

About the Book:

This book compiles case studies from 34 "highly ambitious and rigorously challenging" General Education Honors courses at Tsinghua University, all designed under the principle of "no disciplinary prerequisites, yet profound academic depth." Spanning the humanities, social sciences, arts, and natural sciences, each case study includes a course overview, teaching structure, faculty-student Q&A dialogues, and reflections on the most pressing questions students raise-highlighting instructors' pedagogical philosophy and dedication behind their curriculum design. The book also showcases exemplary student assignments across disciplines, illustrating the diversity of Tsinghua's general education offerings and the creative spirit of its learners. As a practical embodiment of Tsinghua's vision for holistic education, this collection serves not only educators, university students, and aspiring scholars seeking to understand the essence of general education, but also offers a repository of teaching wisdom and innovative methodologies from Tsinghua faculty, providing actionable insights for personal growth and pedagogical innovation.

About the Author:

Editor: Peng Gang, Vice President of Tsinghua University and Professor of History in the School of Humanities, specializes in research and teaching on Western intellectual history and historiography.

Deputy Editor-in-Chief: Yang Fan, Deputy Director of Tsinghua's Academic Affairs Office and Head of Academic Program Development, conducts research and oversees the planning and implementation of initiatives in undergraduate program development, curriculum design, and general education curriculum development.

艺术

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艺术通识十六讲

Sixteen Lectures on Artistic Literacy



作者:李睦 Author: LI Mu ISBN: 9787302665175 Publication Date: 7/1/2024 Page Count: 232

About the Book:

This book is divided into theoretical and practical perspectives, featuring sixteen lectures including "The Rationale for Painting," "Exploring the World of Sensory Perception," and "Aesthetic Judgment in Visual Language." Structured as a dialogic format, it guides students to sharpen perception, deepen appreciation, cultivate independent thinking, foster authentic expression, and encourage multifaceted creation, integrating these dimensions organically. Richly illustrated with case studies, the text incorporates core artistic concepts, supplementary readings, and exercises, supplemented by course presentation materials, student projects, and instructor feedback. Designed as an accessible aesthetic education resource for art enthusiasts, it bridges theory with hands-on engagement.

About the Author:

Li Mu, Professor and Doctoral Advisor at the Academy of Arts & Design, Tsinghua University, serves as a Member of the Academy's Academic Committee, Director of the Institute for Social Aesthetic Education, and Secretary-General of the Higher Art Education Branch under the National Education Calligraphy & Painting Association.

摄影之眼

The Photographic Eye



作者: 陈峰 Author: CHEN Fena ISBN: 9787302661665 Publication Date: 6/1/2024 Page Count: 150

About the Book:

This book decodes photography through the lens of "seeing," exploring how human eyes perceive visual comfort, revealing subconscious visual principles embedded in our cognition, and helping readers better understand how to wield photographic visual elements. By introducing concepts like "visual weight," it elegantly resolves compositional balance challenges while guiding readers to cultivate observational skills for discovering and capturing beauty in daily life, thereby accelerating photographic mastery. Through 17 core principles, the work deeply explains the "photographer's eye"-investigating not only how we should see but also how to elevate one's craft from mere observation to intentional capture. The Photographic Eye serves both as foundational training for novices and as an advanced reference for experienced practitioners seeking to refine their art.

About the Author:

Chen Feng, known online as Laoqi Photography; is a member of the China Photographers Association; Standing Council Member of the Fujian Photographers Association; gold medalist in international photography competitions, including the China Region People Category First Prize, Local Culture Category Second Prize, and Special Portfolio Award from the National Geographic Global Photography Contest.

纽约建筑摄影

New York Architecture Photography



作者: 老阎 Author: LAO Yan ISBN: 9787302667667 Publication Date: 8/1/2024 Page Count: 376

About the Book:

This collection features over three hundred stunning black-and-white photographs taken in downtown Manhattan. It captures the interplay of architectural spaces and the daily lives of its inhabitants, vividly depicting everyday life in the city. Manhattan exemplifies humanism in its planning, design, use, and management, showcasing the city's temporal continuity and inclusiveness while presenting a rich spatial diversity. This book serves as a genuine record of Manhattan from 2022 to 2023, offering valuable insights for architectural design, photography, and factual documentation of architecture.

About the Author:

The author Lao Yan (a graduate of Tsinghua University's Department of Architecture) brings dual perspectives as both an architect and a real estate developer, focusing on the interplay between historic and contemporary buildings in Manhattan and the dynamic relationship between architecture and its inhabitants.

以人为本的医疗服务 探索医患关系中的医学伦理、社会责任与数字技术应用

People-Centered Healthcare: Exploring Medical Ethics, Social Responsibility, and Digital Technology Applications in Doctor-Patient Relationships



作者: 阎红慧 Author: YAN Honghui ISBN: 9787302676560 Publication Date: 11/1/2024 Page Count: 154

About the Book:

This book delves into medical ethics, social responsibility, and digital tech applications in doctor-patient relationships, aiming to build a harmonious connection. Using grounded theory, the author studies three private healthcare institutions, analyzing information asymmetrys impact and the roles of corporate social responsibility and customer relationship management in enhancing these relationships, as well as the significance of medical ethics. The book has seven chapters. It starts with the research background, objectives, methods, and writing process, followed by a literature review. Then it details the research design, including the framework, theoretical abstraction, data collection, and analysis. In the findings and discussion section, it thoroughly examines how information asymmetry affects doctor-patient relationships and how businesses can improve them through customer relationship management, corporate social responsibility, and medical ethics. Finally, it presents case studies on improving doctor-patient relationships, offers personal reflections and respondent feedback, and concludes with research findings and future directions.

About the Author:

Yan Honghui, a postgraduate in medical management, Ph.D. in management, and Ph.D. in psychology, has accumulated over a decade of experience in listed pharmaceutical companies. She founded Qingdao Bohou Huici Medical Technology Co., Ltd., which offers innovative medical services via high-tech, internet hospitals, and chain medical institutions, providing convenient care online, in-hospital, and at-home.

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史 Culture, Arts, Architecture and History

A Glimpse of Chinese Culture

to be published soon 作者:罗晓黎、欧秋耘、洪琪、华丹丹、鲁维佳、 金汤、王文明、刘晖、黎闯进 Author: LUO Xiaoli, OU Qiuyun, HONG Qi, HUA Dandan, LU Weijia, JIN Tang, WANG Wenming, LIU Hui, LI Chuangjin ISBN: 9787302646709 Publication Date: 3/1/2025 Page Count: 236

About the Book:

This textbook categorizes content by cultural themes across 12 chapters: Origins of Chinese Culture, Introduction to China, Chinese Language, Chinese Philosophy, Traditional Chinese Education, Classical Chinese Literature, Chinese Performing Arts, Chinese Architecture, Chinese Festivals, Chinese Cuisine, Chinese Handicrafts, and Traditional Chinese Medicine. Each chapter features three core texts, two supplementary readings, and related exercises. Designed to cultivate a multidimensional understanding of Chinese culture, the textbook guides students to explore the cultural essence underlying phenomena, enhancing their critical thinking and ideological awareness. It serves as a core resource for English majors, a general elective for humanities education across universities, and a reference for readers seeking to deepen their knowledge of Chinese cultural traditions.

About the Author:

Luo Xiaoli, Associate Professor specializing in intercultural communication. She has led and completed one provincial-level education planning research project and one provincial Department of Education initiative, published 15 academic papers, co-authored one scholarly monograph, and contributed to one textbook. Her course Introduction to Chinese Culture has been recognized as a Hubei Provincial First-Class Course and a Hubei Provincial Ideological and Political Education Model Course.

以身许国

Dedication to the Nation



作者: 葛能全、冯立昇、范宝龙 Author: GE Nengguan, FENG Lisheng, FAN Baolong ISBN: 9787302674511 Publication Date: 10/1/2024 Page Count: 480

About the Book:

October 16, 2024, marks the anniversary of the successful detonation of China's first atomic bomb. Over the 75 glorious years of the People's Republic of China, the successful development of the "Two Bombs, One Satellite" stands as a monumental achievement that fills the Chinese nation with pride. The "Two Bombs, One Satellite" spirit was among the first to be enshrined in the spiritual lineage of Chinese Communists. This book, through vivid personal accounts and rare historical images, chronicles the life journeys of 14 Tsinghua alumni awarded the Meritorious Service Medal for the "Two Bombs, One Satellite" program. It traces their relentless pursuit of knowledge, unwavering dedication to the nation, perseverance through hardship, and monumental contributions - particularly highlighting their moving stories and pivotal moments during the development of the "Two Bombs, One Satellite." Readers will gain insight into how Chinese scientists achieved this feat under extraordinarily challenging historical conditions, while deeply appreciating the essence and enduring power of the "Two Bombs, One Satellite" spirit: patriotism, selflessness, self-reliance, relentless effort, collective collaboration, and the courage to scale new heights. This book is an exceptional work of practical significance that celebrates the great spirit of Chinese Communists.

About the Author:

Ge Nengquan, born in December 1938, served as the personal secretary to Mr. Qian Sanqiang for many years.

Feng Lisheng is the Director of the Institute for the History of Science and Ancient Documents at Tsinghua University.

Fan Baolong, a member of the Communist Party of China and a senior researcher, formerly served as Director of the Tsinghua University Archives and History Research Office.

这就是山海经

This Is the Classic of Mountains and Seas (Shan Hai Jing)



作者: 陈连山 叶舒宪 张劲硕 等 著; 花花生生 绘 Author: CHEN Lianshan, YE Shuxian, ZHANG Jingshuo et al., Peanut Group (Illustrator) ISBN: 9787302674528 Publication Date: 12/1/2024 Page Count: 230

About the Book:

This book features a prestigious lineup of five expert authors who guide readers into the depths of this ancient celestial text, restoring its original essence. Combining decades of specialized research from Chen Lianshan (Peking University professor), Ye Shuxian (renowned mythology scholar), Sun Xiaoqin (creator of the definitive geographic atlas for The Classic of Mountains and Seas), Zhang Jinshuo (researcher at the National Zoological Museum), and Li Shiqiong, the work deciphers the text's cultural, geographic, mythological, zoological, and botanical mysteries. It reveals previously unexplored secrets of this celestial text, the brilliance and primordial essence of Chinese civilization from five millennia ago, and how it continues to shape our modern identity. Drawing on interdisciplinary expertise in history, mythology, geography, zoology, and botany, the authors provide multidimensional insights into this legendary work. Enhanced with six breathtaking 10-fold page scrolls included as surprise inserts, the book recreates the aesthetic experience of Tao Yuanming's "flowing panorama of the mountains and seas," offering every reader a visual journey through "this is the Classic of Mountains and Seas." Join the authors in exploring this extraordinary text - a voyage across time and space that redefines our understanding of the world and ourselves.

About the Author:

Chen Lianshan, Professor in the Department of Chinese Language and Literature at Peking University, Vice President of the Chinese Folklore Society. His research focuses on mythology and folklore, with notable works including Academic History of The Classic of Mountains and Seas: Critical Studies.

Ye Shuxian, Distinguished Professor of Humanities at Shanghai Jiao Tong University, researcher at the Chinese Academy of Social Sciences, and Honorary Chairman of the Literary Anthropology Research Association.

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作者:清华大学出土文献研究与保护中心 Author: Research and Conservation Center for Unearthed Texts, Tsinghua University ISBN: 9787302678335 Publication Date: 12/1/2024 Page Count: 658

About the Book:

On December 9, 2023, Tsinghua University's Center for the Study and Conservation of Excavated Documents hosted a symposium to commemorate the 90th anniversary of Mr. Li Xueqin's birth. Over 130 scholars, friends, and disciples from across the nation attended the event, reflecting on Mr. Li's academic journey, his distinctive scholarly approach, intellectual legacy, achievements, and contributions. Drawing from symposium speeches and selected papers, this commemorative volume has been compiled and published to express profound remembrance and enduring tribute to Mr. Li. Mr. Li Xueqin's academic philosophy, research methodologies, and scholarly accomplishments represent a precious intellectual heritage he left behind. Studying his ideas and achievements remains an ongoing mission for the Center for the Study and Conservation of Excavated Documents, as it strives to carry forward and build upon his academic spirit.

About the Author:

The Center for the Study and Conservation of Excavated Documents at Tsinghua University is an independent research entity directly under the university. Its primary focus lies in the study and preservation of excavated texts, including oracle bones, bronze inscriptions, bamboo slips, and silk manuscripts. To date, the center has published the Tsinghua Bamboo Slips series of collation reports and numerous academic works, solidifying its position as a leading hub for excavated document research and conservation worldwide.

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Culture, Arts, Architecture and History

艺术家书

Artists' Books



作者: 徐冰主编 Author: XU Bing (Editor-in-Chief) ISBN: 9787302657880 Publication Date: 1/1/2025 Page Count: 183

About the Book:

This work traces the historical roots, philosophical reflections, and creative practices of handmade artists' books by domestic and international artists, alongside their vibrant explorations and interpretations of modern and contemporary book arts. It paints a portrait of artists' personal journeys, their studios, handmade book workshops, the art bookstores/ independent bookshops and specialized libraries that champion these creators, and private collections of artists' books - all part of a richly textured artistic universe. In an era where specially-bound editions have become coveted collectibles among general readers, the book illuminates lesser-known narratives: the evolution from ancient craftsmanship to modern fine binding, the meticulous creation and curation of artists' books, and the expansive academic training surrounding this medium. It also documents cross-generational aesthetic education initiatives in bookmaking, engaging diverse age groups and communities.

About the Author:

Xu Bing, Professor at the Central Academy of Fine Arts and former Vice President of the institution. His seminal works are held in major collections worldwide, including the National Art Museum of China and the British Museum in London. He received the MacArthur Award (1999), the highest honor in American cultural circles, and the inaugural Artes Mundi International Visual Arts Prize (2004).

神经语言学新发展研究

Neurolinguistics: New Perspectives and Development



作者:崔刚、王海燕、钟晓云 Author: CUI Gang, WANG Haiyan, **ZHONG** Xiaoyun ISBN: 9787302666516 Publication Date: 10/1/2024 Page Count: 424

About the Book:

This book comprehensively examines research in clinical neurolinguistics, experimental neurolinguistics, and applied neurolinguistics since the 21st century, focusing on themes such as research methodologies in neurolinguistics, neural foundations of language use, neurobiological mechanisms of language learning and bilingualism, aphasia and other language disorders, language evolution and genetic studies, and applications of neurolinguistic theories. It systematically reviews major research approaches and findings, critically addresses existing challenges, and explores future directions. Aimed at advancing research in China's neurolinguistics field, the work equips readers with a clear understanding of the discipline's current landscape and emerging trends. Designed for researchers in neurolinguistics and psycholinguistics, graduate students in linguistics and applied linguistics, language rehabilitation therapists, and readers fascinated by the brainlanguage relationship, this book bridges cutting-edge science with practical insights.

About the Author:

Cui Gang, Tenured Professor in the teaching-research series, Director of the Center for Language and Psychology, head of the Language, Psychology, and Cognition disciplinary cluster, and Chairperson of the Professional Committee on Language Cognition and Intelligent Development under the China Association for Language Modernization.

Wang Haiyan, Associate Professor and doctoral supervisor at the School of Foreign Languages, Shanghai Jiao Tong University.

Zhong Xiaoyun, Associate Professor at Qingdao University of Technology, master's supervisor, and Ph.D. graduate of Tsinghua University.

词汇学100核心概念与关键术语

100 Core Concepts and Key Terms in Lexicology



作者:张维友、黄曼 Author: ZHANG Weiyou, HUANG Man ISBN: 9787302661573 Publication Date: 10/1/2024 Page Count: 340

About the Book:

This book systematically explores the essential foundations of lexicology, organized into major thematic sections: basic knowledge of words and vocabulary, the evolution of English vocabulary, morphological structure of English words, word formation processes, word meaning, semantic relationships, semantic change, English idioms, and the application of vocabulary. Structured around core concepts and key terminologies, each section delves into multiple critical ideas. For instance, the "semantic relationships" section covers polysemy, synonymy, antonymy, hyponymy, semantic fields, and componential analysis. Adopting a concept-centered approach, the book progressively unpacks each topic from basic to advanced levels, offering comprehensive insights to cater to readers of varying proficiency. It serves as an accessible reference for university students, educators, vocabulary researchers, and all enthusiasts of English lexicology, providing both foundational knowledge and specialized guidance for study, teaching, or academic inquiry.

About the Author:

Zhang Weiyou, Second-Class Professor, doctoral supervisor, former member of the English Sub-Committee under the Ministry of Education's Foreign Language Teaching Steering Committee, and former Dean of the School of Foreign Languages at Central China Normal University.

Huang Man, Associate Professor, Ph.D., honored with Shenzhen University's "Liyuan Outstanding Young Scholar" title.

计算语言学100核心概念与关键术语

100 Core Concepts and Key Terms in Computational Linguistics



作者:冯志伟 Author: FENG Zhiwei ISBN: 9787302624653 Publication Date: 11/1/2024 Page Count: 508

About the Book:

This book compiles 100 core concepts and key terms spanning foundational and advanced topics in computational linguistics, including general principles of computational linguistics, automatic speech processing, automatic lexical processing, automatic syntactic processing, automatic semantic processing, statistical natural language processing, and neural networkand deep learning-based natural language processing. Designed as a knowledge-refreshing resource, it serves students and educators in fields such as Chinese, foreign languages, and computer science. By systematically integrating linguistic theory with computational applications, the book empowers linguistics and computer science professionals, academics, and students to bridge disciplinary knowledge, fostering interdisciplinary collaboration and innovation in language technology.

About the Author:

Feng Zhiwei, a distinguished computational linguist renowned for his interdisciplinary expertise in linguistics, mathematics, and computer science. Over five decades, he has pioneered cross-disciplinary research at the intersection of these fields, establishing himself as one of China's earliest scholars in artificial intelligence, natural language processing, and computational linguistics.

语言哲学100核心概念与关键术语

100 Core Concepts and Key Terms in the Philosophy of Language



作者:杜世洪 Author: DU Shihona ISBN: 9787302675976 Publication Date: 12/1/2024 Page Count: 408

About the Book:

This book presents the core content of the philosophy of language, encompassing its pivotal themes and critical terminology. The five central themes - truth, meaning, the nature of language, the relationship between language and reality, and the connection between language and thought - are each elucidated with clarity through diverse analytical approaches. While emphasizing classical debates in the philosophy of language, the book also prioritizes the introduction of emerging perspectives, innovative ideas, and contemporary methodologies. The core concepts and key terms explored here hold profound relevance not only for general readers in philosophy, scholars of philosophical thought, researchers in the humanities and social sciences, and academics and students, but also for anyone captivated by language, engaged in its everyday use, and driven by a quest to understand truth and practical wisdom.

About the Author:

Du Shihong, Born in Wusheng, Sichuan Province, Dr. Du Shihong is a Professor and Doctoral Supervisor at the School of Foreign Languages and Cultures, Southwest University, as well as a Postdoctoral Research Supervisor. He serves as Vice President of the Chinese-English Comparative Studies Association's Committee on Sino-Western Philosophy of Language, Standing Council Member of the Pragmatics Committee of the Chinese Logic Society, Standing Council Member of the Comparative Society of Chinese and Foreign Languages and Cultures' Committee on Translatology, and Member of the Chongqing Writers Association.

批判性思维通识课

Liberal Arts Course of Critical Thinking



作者:田洪鋆 Author: TIAN Hongjun ISBN: 9787302672029 Publication Date: 9/1/2024 Page Count: 303

About the Book:

This book reveals four intrinsically interconnected dimensions of critical thinking: (1) Cognitive Thread: All thought processes inherently involve core elements including issues, conclusions, premises, and unstated assumptions. (2) Argumentation Thread: Advances argument analysis to encompass both deconstructing and constructing arguments, systematically examining and evaluating their linguistic precision and logical coherence. (3) Premise Thread: Demonstrates how objective realities (including knowledge) manifest as explicit and implicit premises during cognitive operations, providing a profound exploration of their functional roles, typological variations, identification mechanisms, and methodologies for refining and systematizing premises. (4) Problem-Solving Thread: Deconstructs critical thinking processes into three problem-centric phases-issue formulation, analytical dissection, and resolution implementation.

About the Author:

Tian Hongjun, Professor and Doctoral Supervisor at the Center for Theoretical Jurisprudence/Law School of Jilin University; Executive Council Member of the China International Private Law Association; Expert Council Member of the China Legal Education Association; Peer Review Expert for National Social Science Fund Projects.

白居易传:诗人的七座花园

Bai Juyi: The Poet's Seven Gardens



作者:周文翰 Author: ZHOU Wenhan ISBN: 9787302670773 Publication Date: 1/1/2024 Page Count: 354

About the Book:

This book traces Bai Juyi's journey as a scholar, poet, and garden designer. He was raised among courtyards and ultimately found his sanctuary in gardens. In these beautiful gardens, he experienced gains, losses, and an enduring fascination with it all. Courtyards and gardens served as his playgrounds and sanctuaries - spaces that both protected and confined him. Amidst these landscapes, he admired snow-clad moons and wind-swept blossoms, yet also voiced resignation, troubles, and regrets. He harbored quiet convictions and quiet disdain, though never shouted them aloud. He was neither a radical adventurer, nor a scheming tactician, nor a recluse or eccentric hiding in mountains. He lived gently, nostalgic and chatty like an old friend. He cherished worldly pleasures-wooded springs and moonlit breezes, the conveniences of urban life-yet balanced them with transcendent tastes. Through his unique lens, he chronicled daily life and personal emotions, crafting a voice that, despite the passage of a thousand years, still resonates with warmth and familiarity.

About the Author:

Zhou Wenhan is an art and architecture critic, historian, and writer. A member of the China Literary and Art Critics Association and the Beijing Calligraphers Association, he worked as a cultural journalist from 2002 to 2008. Between 2008 and 2010, he traveled across South Asia and Southern Europe to study museums, architecture, and cultures. He currently engages in cultural research, art curation, and writing.

花窗:风暖度香丛

Latticed Windows: Warm Breezes Through Fragrant Blooms



作者:潘鹏、孙哲 Author: PAN Peng, SUN Zhe ISBN: 9787302670803 Publication Date: 9/1/2024 Page Count: 216

About the Book:

This book is the culmination of the author's decades of fieldwork in classical gardens and meticulous literary research. Taking an unconventional path, the author chose the seemingly humble garden latticed window as the focal subject. Starting with the materials and structures of these windows, the book details their classifications, common motifs and patterns, as well as the distribution and artistic characteristics of latticed windows across 34 Jiangnan gardens. Combining captivating theoretical insights with artful interplay of light and shadow in its photographs, the work illuminates the pivotal role latticed windows play in elevating garden aesthetics. These small yet intricate windows, carved by time, stand as a testament to ancient aspirations for an idealized life. They epitomize the artistry of Chinese garden design and architectural aesthetics, still captivating viewers today. Through them, we glimpse the profound aesthetic sensibilities embedded in traditional Chinese culture.

About the Author:

Pan Peng, Senior Engineer (Architecture) and Master of Design, graduated from Tsinghua University and the Hong Kong Polytechnic University. He currently serves as Director of the Beijing Central Academy of Fine Arts Innovation Urban Architecture Design and Research Institute and Head of the SketchUp (China) Authorized Training Center. Sun Zhe, retired lecturer from Jiangsu University of Technology, Engineer, and expert at the Zhulong Architecture Think Tank.

A Pocket Guide to Beijing's Central Axis



作者: 刘阳 Author: LIU Yang ISBN: 9787302668664 Publication Date: 8/1/2024 Page Count: 143

About the Book:

The concept of the "Beijing Central Axis" was first proposed by Mr. Liang Sicheng. It refers to the symmetrical axis along which Beijing's urban layout-from the Yuan Dynasty's Dadu City to the Ming and Qing Beijing-was designed, with many key structures aligned on this line. The Ming-Qing Beijing Central Axis stretches from Yongding Gate in the south to the Bell and Drum Towers in the north, forming the foundational blueprint for the city's planning and construction. In 2018, Beijing's Central Axis bid for UNESCO World Heritage status identified 14 heritage sites, and this book uses this framework to explore commonly asked questions about the axis. Focusing on architectural craftsmanship and heritage preservation, it offers accessible explanations to help readers better understand the historical buildings along the Central Axis and gain insight into how ancient planners conveyed their understanding of political philosophy, cultural symbolism, and spatial design through urban layout.

About the Author:

Liu Yang serves as a member of the Academic Committee of the China Yuangmingyuan Society and Vice President of the Beijing Historical Geography and Folklore Society. He currently works at the Administration Office of the Yuanmingyuan Imperial Garden and has dedicated years to researching Beijing's historical geography and Qing Dynasty imperial gardens.

水木烙印

The Imprint of Idyllic Tsinghua



作者: 胡钰 Author: HU Yu ISBN: 9787302465515 Publication Date: 4/3/2025 Page Count: 244

About the Book:

This book offers a window into the culture and personalities of Tsinghua University. Drawing on the author's own experiences as a student, faculty member, and longtime resident of the campus, it captures the nuances of life at Tsinghua in vivid detail. Simultaneously, it serves as a lens through which to observe China's advancements in technology, talent development, economy, and society - grounded in the author's extensive tenure working within central government ministries and state media outlets, where he documented dynamic facets of the nation's progress.

About the Author:

Hu Yu, B.A. in Economics, M.A. in Literature and Ph.D. in Law from Tsinghua University, is now a professor and doctoral supervisor at Tsinghua University.

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绘筑天津

Painting Tianjin



作者: 孙媛 Author: SUN Yuan ISBN: 9787302675051 Publication Date: 10/1/2024 Page Count: 64

About the Book:

This book focuses on Tianjin's modern architecture, renowned as the "Universal Architecture Exposition." It offers a comprehensive analysis of its cultural significance and historical context through an interdisciplinary lens, drawing from architecture, cultural heritage preservation, and history. The architectural styles found in Tianjin are diverse, incorporating Renaissance, Classicism, Eclecticism, Baroque, and more. These styles not only chronicle the city's development but also embody its social memory and the spirit of different eras. Utilizing drone aerial photography, 3D modeling, architectural mapping, and hybrid images, the book not only captures the visual essence of these buildings but also explores the intricate connections between architecture, history, people, and the social environment from various perspectives.

About the Author:

Sun Yuan, Associate Professor and Master's Supervisor in the Department of Design at Beijing Jiaotong University's School of Architecture and Art, holds a Ph.D. in Architectural History and Theory from Tianjin University, a postdoctoral fellowship in Landscape Architecture from Tsinghua University, and was a visiting scholar at the University of North Carolina at Chapel Hill.

颐和园

The Summer Palace



作者: 连达 Author: LIAN Da ISBN: 9787302670766 Publication Date: 11/1/2024 Page Count: 89

About the Book:

Crafted by human hands, yet mirroring nature's artistry, the Summer Palace stands as a quintessential example of imperial gardens from the Ming and Oing dynasties. Among the few such gardens preserved to this day, its uniqueness lies in the rare harmony between its natural landscape of encircling hills and embracing waters and the opulent imperial architecture. In December 1998, UNESCO inscribed the Summer Palace on the World Heritage List, joining the Forbidden City as one of China's treasured global cultural legacies. Originally named the Garden of Clear Ripples, it has witnessed both glorious prosperity and humiliating, painful chapters of history. Dear young readers, let's join Uncle Lianda as we journey across time to explore the construction of the Summer Palace, uncover its inspirations from Jiangnan gardens, and spot the variations in its iconic "grand roofs" depicted in paintings... When you eventually visit the Summer Palace in person, you'll surely gain even deeper insights and discoveries!

About the Author:

Lian Da, an ancient architecture enthusiast, once hiked along vast stretches of the Ming-era Great Wall across Hebei, Beijing, Tianjin, Shanxi, and parts of Liaoning. In recent years, he has spent his free time documenting historic structures throughout Shanxi. Self-taught in sketching, he has ventured through numerous cities, counties, and villages across the province, producing nearly a thousand on-site drawings of these architectural treasures.

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Interesting History: A Global Perspective



作者: 王怀利、刘建新、王烨、宋薇、于洋 Author: WANG Huaili, LIU Jianxin, WANG Ye, SONG Wei, YU Yang ISBN: 9787302674467 Publication Date: 12/1/2024 Page Count: 384

About the Book:

This book consists of nine chapters, using authentic, engaging, and vivid stories to narrate world history from the origins of humanity to the 20th century. It emphasizes both the chronological progression of historical events and the overarching themes of historical development. To help readers grasp the context and complexities of historical events more comprehensively, Interesting History: A Global Perspective includes supplementary sections. These features not only aid readers in interpreting history through a deeper contextual lens but also broaden their critical thinking and cultivate core competencies in historical literacy. Through this book, readers will discover the inherent fascination and significance of history itself. By bridging connections between past and present, Interesting History: A Global Perspective empowers young readers to engage with the modern world while fostering sound values and a global outlook. The book is tailored for adolescents but also holds substantial reference value for general history enthusiasts.

About the Author:

Wang Huaili, History Teacher at Zhongguancun High School affiliated with the Chinese Academy of Sciences.

Liu Jianxin, Beijing Municipal Special-Grade Teacher.

Wang Ye, Academic Supervisor for Junior High History in Haidian District, Beijing.

Song Wei, History Teacher at Tsinghua University High School.

Wang Cong, Teacher at Dalian Economic and Technological Development Zone No.7 Middle School.

Yu Yang, Haidian District Academic Leader.

从秦皇到汉武系列

From Emperor Qin Shi Huang to Emperor Wu of Han (3 Volumes)



作者:风长眼量 Author: Fengchangyanliang ISBN: 9787302666424 Publication Date: 9/1/2024 Page Count: 336

About the Book:

This trilogy comprises three volumes totaling over one million words and nearly 400 maps. The Fall of the Six Kingdoms is structured in three major sections: the Oin tribe's elevation to a feudal lordship, their unification of the Guanzhong heartland, and dominance over the western frontier; the sweeping reforms of Shang Yang that established a military meritocracy in Oin; the rise of the legendary general Bai Oi, whose decisive victory at the Battle of Changping set the stage for unification; Emperor Qin Shi Huang destroys the six kingdoms and tours the world, and Zhao Gao and Li Si's plan for the sand dunes. The Chu-Han Divide explores four key phases: Chen Sheng and Wu Guang's rebellion and collapse; the Battle of Julu; Liu Bang's capture of Guanzhong; the Hongmen Banquet; Xiang Yu's division of territories; the Battles of Pengcheng and Xingyang; the Chu-Han truce at Hong Canal; the Gaixia showdown; Han Xin's tenfold ambush; and Xiang Yu's suicide at the Wu River. Organized into four parts, The Desert and the Western Frontier chronicles: Modu Chanyu's consolidation of power across the northern and southern deserts; Wei Qing's recapture of the Hetao region; Huo Qubing's liberation of the Hexi Corridor; the monumental Battle of Mobei; the bittersweet legacy of Li Guang, the "unrewarded general"; Li Guangli's arduous expedition to Dayuan; the Han dynasty's establishment of the Western Regions Protectorate: and the diplomatic triumphs over the Xiongnu, including the submission of Huhanye Chanyu and the elimination of Zhizhi Chanyu. Tailored for enthusiasts of history, geography, and military strategy, this work blends rigorous scholarship with vivid narrative.

About the Author:

Wang Yuqi (Fengchangyanliang), a graduate of Northwestern Polytechnical University, serves as a principal contributor to the self-media platform "Emperor Map." His seminal work The Rise and Fall in Maps was honored as Xinhua Net's "2015 Influential Book of the Year."

给孩子讲《西游记》

Telling Children "Journey to the West"



作者: (明) 吴承恩 著 大嘴飞 改编 王鲁闽 绘 Author: WU Cheng'en (Ming Dynasty), Big Mouth Fei (Adapter), WANG Lumin (Illustrator) ISBN: 9787302678830 Publication Date: 5/1/2025 Page Count: 1296

About the Book:

This book is a heartfelt creation by Big Mouth Fei, a children's thinking education expert with millions of followers on Douyin. While staying true to the spirit of the original masterpiece, it reimagines *Journey to the West* with ingenious adaptations, narrating the story in language that captivates and resonates with young readers. It seamlessly weaves in classic poems from the original text alongside clear interpretations, allowing children to appreciate the beauty of ancient Chinese poetry and the enduring charm of Journey to the West. Vibrant, whimsical illustrations spark children's understanding and imagination. The author skillfully embeds profound philosophical ideas into these timeless tales, crafting a magical yet educational reading experience. Specially designed parent-child thinking exercises enable families to explore the story's themes together, fostering critical thinking and growth. Additionally, the book's creative drawing prompts encourage children to reimagine scenes through art, enhancing hand-eye coordination and holistic cognitive development. More than just a children's book, this is a transformative educational tool that inspires creativity, elevates intellectual growth, and nurtures well-rounded development.

About the Author:

Big Mouth Fei, born Zhou Xuefei, has over 20 years of expertise in cognitive education and research. A sought-after speaker, he has delivered 1,000+ lectures to diverse audiences - from university students and preschoolers to educators, parents, corporate leaders, and entrepreneurs. With over 2 million followers across platforms and family education videos amassing 100 million+ views, his courses and consulting have benefited over 100,000 families.

Wang Lumin, Doctor of Arts, animation program mentor at Hebei Academy of Fine Arts. His work Child Prodigy Xiang Tuo was selected for the 2020 "Original Power Chinese University Animation Publishing Incubation Plan" by the Central Propaganda Department.

给孩子讲年画故事

Telling New Year Painting Stories to Children



作者: 殷伟 Author: YIN Wei ISBN: 9787302678809 Publication Date: 1/1/2025 Page Count: 214

About the Book:

The world evolves and eras progress, yet for the Chinese people, the timeless hopes for good health and joy, favorable weather and bountiful harvests, and a thriving nation at peace with its people have remained largely unchanged across millennia. This compact volume gathers 200 once-common New Year painting themes, each reflecting distinct artistic variations shaped by regional traditions. Focusing on the most vibrant and widely recognized styles, the book invites children to explore traditional culture, appreciate the beauty of ancient folk customs, and naturally empathize with the aspirations of past generations. Through these stories, young readers are encouraged to reflect on the spiritual essence of "Chineseness" and the collective vision embedded in the phrase "the Chinese nation."

About the Author:

Yin Wei, currently Executive President of the Singapore World Chinese Traditional Culture Exchange Association, specializes in Chinese traditional culture research. A prolific and influential author, he has authored numerous significant works.

给孩子讲《红楼梦》

Telling Children "Dream of the Red Chamber"



作者: 暜航 Author: PU Hang ISBN: 9787302669050 Publication Date: 8/1/2024 Page Count: 355

About the Book:

The complex literary structure and frequent use of techniques like "hidden threads" (subtle foreshadowing) are defining features of Dream of the Red Chamber, yet they also pose challenges for young readers. Excerpts from the novel are included in primary and secondary school Chinese textbooks across China, with high school curricula requiring full-text reading of Dream of the Red Chamber-a subject now integrated into the National College Entrance Examination (Gaokao). Telling Children "Dream of the Red Chamber" aligns with the curriculum's key topics and test requirements, selecting classic characters and plotlines suitable for young audiences while preserving the original's structural and stylistic essence. The book reorganizes these elements into smooth, engaging, and childfriendly narratives. Drawing from the Zhiyanzhai commentary, it uses footnotes to explain classical literary techniques and cultural references, blending education with entertainment to serve as a bridge guiding readers toward the original text.

About the Author:

Pu Hang, a scholar of traditional Chinese culture and Dream of the Red Chamber researcher, serves as a cultural guest expert for China Media Group, a member of the Beijing Cao Xueqin Society, and the lead instructor for the Dream of the Red Chamber MOOC series at the Open University of China. He has delivered lectures on the novel and traditional culture in dozens of schools nationwide and recorded the audio series Pu Hang Explains the Red Chamber.

给孩子讲传统民居

Telling Children About Traditional Dwellings



作者: 毛葛 Author: MAO Ge ISBN: 9787302686262 Publication Date: 3/1/2025 Page Count: 208

About the Book:

This book uses a question-and-answer format to address 50 common questions children might have about "old houses" -typical traditional residential buildings from across China. It introduces examples such as Beijing's siheyuan (courtyard houses), Shilipu's dikengyuan (pit courtyard dwellings), Xinzhong Village's yaodong (cave dwellings), Xinye Village's Huizhou-style houses, Longji's stilted ganlan residences, Gaoyi Village's cellar-like yinzi homes, Fujian's tulou (earthen buildings), and Mongolian yurts. The book describes the architectural features and construction processes of these building types, as well as the lives of the people who inhabit them. With a lively format and diverse content, it combines playful cartoons of tiny characters constructing houses with simple, engaging explanations. It covers geography-specific traits, construction tools, building processes, and other specialized knowledge related to common traditional dwellings, allowing young readers to effortlessly grasp the unique architectural techniques and cultural traditions embedded in China's residential heritage.

About the Author:

Mao Ge holds a Bachelor's degree in Architecture from Tsinghua University and a Master's degree in Architecture from the Polytechnic University of Milan. For years, he has been engaged in vernacular architecture research, revitalization of historic districts, and restoration design of heritage buildings. His published works include Illustrating Old Houses, The Three Manor Houses of Gongyi, and Drawing Traditional Dwellings.



经管 法律 心理 Economy & Management, Laws and Psychology

待办任务-重塑产品创新和市场策略

Jobs to Be Done (JTBD): **Reshaping Product Innovation and Market Strategies**



作者: 崔大鹏、何琳 Author: CUI Dapeng, HE Lin ISBN: 9787302677079 Publication Date: 12/1/2024 Page Count: 340

About the Book:

This book integrates Professor Stansen's theoretical research and Wuwick's insights on "design thinking for product managers", while primarily focusing on summarizing and synthesizing our practical framework and operational methodologies for applying the "Jobs to Be Done Theory" in product development, service design, marketing innovation, and business transformation within real-world commercial contexts. It provides business practitioners in China-particularly corporate leaders and marketing professionals-with an actionable toolkit grounded in implementation. The work systematically organizes and explores various theories and concepts within the JTBD domain, enabling readers to fully comprehend this revolutionary paradigm. Serving as a practical guide for implementing JTBD principles, the book presents JTBD as both a cohesive system of concepts, principles, and methodologies, and as a transformative approach to reframing and solving business challenges. Designed to function equally effectively as a textbook for undergraduate and graduate students in related disciplines, it also serves as an operational reference manual and training resource for corporate practitioners across industries.

About Author:

Cui Dapeng, General Manager of Diagaid Market Research Co., Ltd. and Vice President of the Data and Market Research Committee of the China Collegiate Marketing Association. His research expertise spans conjoint analysis, data mining, and AI-powered marketing forecasting.

He Lin, Founder of Guanchaoxing Digital Technology Co., Ltd., holds degrees from the Department of International Politics at Fudan University and the Fudan-MIT International MBA Program.

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商业研究方法与应用

Commercial Research Methods and Applications



作者: 唐小飞、王庆涛、张全成等 Author: TANG Xiaofei, WANG Qingtao, ZHANG Quancheng et. al. ISBN: 9787302661504 Publication Date: 7/1/2024 Page Count: 246

About the Book:

This book systematically introduces the fundamental concepts, basic methodologies, and practical case studies in commercial research. Organized into 9 chapters, it primarily covers commercial research, data analysis and interpretation, consumer behavior research, new product testing research, positioning research, advertising research, key components of commercial research reports, workflow for drafting commercial research reports, and essential competencies and requirements for commercial research report writing.

About Author:

Tang Xiaofei, Professor and Doctoral Supervisor at the School of Business Administration of Southwestern University of Finance and Economics; Director of the Urban Brand Strategy Research Institute at Southwestern University of Finance and Economics; Independent Director of China FIYTA Group and Oianhe Seasoning Industry Co., Ltd.; Review Expert for National Natural Science Foundation Projects.

数字经济学

Digital Economics



作者: 刘涛雄 Author: LIU Taoxiong ISBN: 9787302667704 Publication Date: 8/1/2024 Page Count: 311

About the Book:

Digital Economics comprises 14 chapters organized into three major sections: micro, meso, and macro perspectives. The microeconomics section (Chapters 2-6) explores new behavioral patterns and decision-making characteristics of economic agents in the digital era. The mesoeconomics section (Chapters 7-10) addresses market dynamics and industrial organization frameworks. Chapters 11–14 constitute the macroeconomics section: Chapter 11 specifically examines emerging patterns and principles of economic growth under digital transformation; Chapter 12 analyzes the impacts of digital economies on comprehensive development, including developmental gaps, quality enhancement, and regional equilibrium; Chapter 13 investigates novel financial instruments and digitally reconfigured capital markets; Chapter 14 adopts a political economy lens to dissect unprecedented phenomena and challenges arising from digital economic systems. The text emphasizes three defining features throughout. Intended primarily for upper-level undergraduates, earlystage graduate students, and cross-industry professionals engaged with digital economies, the book balances theoretical rigor with practical relevance.

About Author:

Liu Taoxiong, Tenured Professor at the Institute of Economics, School of Social Sciences, Tsinghua University, and Dean of the Tsinghua University Institute for Innovation and Development. His research focuses on economic big data, growth theory, and innovation ecosystems. Former Visiting Professor at Chuo University, Tohoku University, and Kyoto University in Japan. The editorial team consists entirely of Tsinghua University faculty members.

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Digital Supply Chains: Technological Empowerment and Industrial Applications



作者: 荣宾、赵韶翊、阮鹏 Author: RONG Bin, ZHAO Shaoyi, RUAN Peng ISBN: 9787302665908 Publication Date: 8/1/2024 Page Count: 228

About the Book:

As digital transformation reshapes global industries, supply chains, spanning decisionmaking, procurement, production, storage, and logistics, face unprecedented opportunities and challenges. This book offers strategic guidance for enterprises navigating supply chain digitization, analyzing traditional weaknesses while exploring how four core technologies can revolutionize the field. It systematically addresses pain points and solutions for digitizing each supply chain stage, making it essential for business leaders and practitioners.

About Author:

Rong Bin, a Tsinghua University EMBA graduate and Peking University alumnus, is a National Senior Logistics Engineer, former JD Logistics executive, supply chain AIoT expert, and co-founder of the Tsinghua-Peking EMBA Alumni Association. Awarded "2021 China IoT Figure of the Year", he brings decades of industry insight.

Zhao Shaoyi, Vice President of Kyland Technology Co., Ltd., previously served as Chief Supply Chain Expert at NAURA and sits on the China Federation of Logistics & Purchasing's Supply Chain Committee.

Ruan Peng, Vice President of Surpath (Shanghai), specializes in digital supply chain frameworks for e-commerce, cross-border trade, manufacturing, and C2M sectors. Together, they combine academic rigor with hands-on expertise.

带你从0到1做个赚钱的小红书:运营实操与心法完全手册

Crafting a Profitable Rednote Empire: From Scratch to Success



作者:何星河 Author: HE Xinghe ISBN: 9787302659969 Publication Date: 7/1/2024 Page Count: 212

About the Book:

When a trend emerges, everyone rushes to seize it. Rednote is precisely that current opportunity. Based on the extensive practical experience of He Xinghe's team since 2020, this book guides you step-by-step in creating a profitable RedNote account from scratch. Blending theory with actionable strategies, it covers niche positioning, account setup, competitor analysis, content creation (shooting and editing), viral copywriting frameworks, monetization models, operational systems, enterprise verification (Blue V), strategic thinking, and multi-account matrix development-providing a comprehensive roadmap for RedNote operations. Rich in real-world case studies, detailed methodologies, and practical insights, the book equips readers to systematically transform occasional viral hits into sustainable success. Whether you're a business adapting to industry shifts, an entrepreneur aiming to multiply traffic and revenue tenfold, a startup pursuing niche opportunities, a digital marketer, a social media researcher, or even a side-hustler exploring RedNote, this guide offers tailored solutions.

About Author:

He Xinghe, a millennial content entrepreneur and strategist behind multi-million follower IPs, has dedicated five years to hands-on research in RedNote content operations. As a digital marketing advisor for multiple corporations and former growth architect at a midsized education firm, he has empowered nearly 1,000 entrepreneurs to build profitable RedNote ecosystems with zero upfront costs.

心性: 女性管理者的8项自我修炼

Cultivating Core Leadership: Eight Disciplines for Women Executives



作者:胡佳 Author: HU Jia ISBN: 9787302686545 Publication Date: 4/1/2025 Page Count: 392

About the Book:

As a pioneering scholar in organizational leadership, Professor Hu Jia integrates cutting-edge research from psychology, management, and economics with in-depth interviews to propose an innovative growth framework for female leaders: the "Dual-Care Model (2CAREs)". This model identifies eight core traits-self-assurance, compassion, decisiveness, altruism, resilience, adaptive thinking, ambition, and empowerment and unpacks their significance through real-world case studies. The book equips readers with comprehensive assessment tools, actionable strategies, and developmental guidance to cultivate these traits. By applying this framework, female executives can navigate challenges, seize opportunities, achieve work-life harmony, and advance their careers with purpose.

About Author:

Hu Jia currently holds joint appointments as Professor at Tsinghua University's School of Economics and Management and Schwarzman College, where she serves as the Citigroup Chair Professor of International Business and Doctoral Advisor. Previously, she was a tenured Full Professor of Management at The Ohio State University's Fisher College of Business and the University of Notre Dame's Mendoza College of Business, and is recognized among Stanford University's global top 2% most-cited scientists.

打造高可靠性组织:

Building Highly Reliable Organizations: From Individual to Collective Mindfulness



作者:郑晓明、倪丹 Author: ZHENG Xiaoming, NI Dan ISBN: 9787302680635 Publication Date: 4/1/2025 Page Count: 192

About the Book:

Authored by Zheng Xiaoming and Ni Dan based on nearly a decade of interdisciplinary research spanning psychology, neuroscience, and organizational behavior, this book systematically introduces the concept of mindfulness, its training methodologies, and its workplace applications. The authors explore mindfulness in professional settings through four dimensions: individual mindfulness, team mindfulness, collective mindfulness, and mindful leadership. In the individual mindfulness section, they detail how mindfulness enhances physical and mental well-being, emotional regulation, work attitudes, job performance, and overall life satisfaction. The team mindfulness segment examines how mindfulness fosters interpersonal relationships, elevates team performance, and stimulates innovation. The collective mindfulness chapter defines the concept, analyzes its influencing factors, and explores its relationship with organizational outcomes such as productivity and innovation. Finally, the mindful leadership section discusses the conceptual framework of mindful leadership, strategies for its development, and its pivotal role in driving organizational transformation.

About Author:

Zheng Xiaoming is currently a Tenured Professor in the Department of Leadership and Organizational Management at Tsinghua University's School of Economics and Management, where he also serves as Director of the China Business Case Center and Doctoral Advisor.

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Economy & Management, Laws and Psychology

超级单品:一出即爆的产品运营方法论

Super Product: The Instant-Hit Methodology for Product Operation



作者: 李小雄 Author: LI Xiaoxiong ISBN: 9787302671473 Publication Date: 9/1/2024 Page Count: 344

About the Book:

Maotai achieved its status as the benchmark for sauce-flavor liquor by perfecting its Feitian Maotai; Gree established its brand dominance by excelling in air conditioners. Across industries, truly successful enterprises and brands share one streamlined strategy: the Super Product.

A Super Product is not merely a single item—it represents a robust methodological framework for corporate and brand growth, driving sustained high-efficiency expansion and securing an organization's future. As China's economy transitions from an incremental to a saturated market, competition now demands holistic organizational capabilities, testing companies' comprehensive strengths and long-term operational competence. This book outlines the Super Product methodology, designed to systematically build product management capabilities across trends, strategy, branding, product development, channels, user experience, technology, and data analytics. By leveraging Super Products to propel brand evolution, enhance user satisfaction, and accumulate enduring corporate assets, businesses can thrive in today's complex landscape.

About Author:

Li Xiaoxiong is the founder of Popcorn Hot Product Consulting, CEO of Huaguan Technology, and an investor and serial entrepreneur with a track record of building companies acquired by Tencent and listed on public markets. As former Deputy General Manager of Xiaomi Communications, he spearheaded multiple hit products and held executive roles at Samsung, OPPO, and BBK Electronics. To date, he has provided training and consulting services to over 1,000 enterprises across 15 industries.

品牌向上:公司品牌管理六策

Brand Elevation: Six Strategies for Corporate Brand Management



作者: 乔林 Author: QIAO Lin ISBN: 9787302654032 Publication Date: 5/1/2024 Page Count: 200

About the Book:

This book serves as a brand management guide for Chinese corporate leaders. Transcending the narrow concept of "small branding," it adopts a "big branding" perspective to propose a philosophy of holistic brand management, offering executives six actionable strategiesthe "Six Brand Management Strategies". Designed to empower Chinese business leaders, it positions branding as a strategic tool to comprehensively address challenges in market competition and strategic management, ultimately enabling organizations to achieve highquality growth.

About Author:

Qiao Lin, Senior Vice President and Managing Partner of Kotler Marketing Group (KMG) China, is an expert in market strategy management and strategic brand leadership. He has provided in-depth market strategy consulting and corporate brand strategy planning for numerous Fortune 500 companies and innovative enterprises. Additionally, he serves as an adjunct MBA mentor for Wuhan University, the Chinese University of Hong Kong (Shenzhen), and Nanjing University of Posts and Telecommunications.

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Economy & Management, Laws and Psychology

创新力

Creativity



作者: 刘毅 Author: LIU Yi ISBN: 9787302670971 Publication Date: 10/1/2024 Page Count: 268

About the Book:

This is a book designed to help professionals, particularly product managers, designers, and managers, develop and enhance their capacity for innovation. Within its pages, the "Product Innovation Pathway" methodology serves as a concrete toolkit and training framework for building personal innovation skills-a reliable approach to achieving tangible results. This system comprises three major phases, four key steps, and eight actionable components, all aimed at breaking through roadblocks and challenges in product innovation implementation. By extracting the essence of innovation, readers can internalize these principles into a driving force for personal growth in creative problem-solving.

About Author:

Liu Yi, a professor and master's supervisor at the Guangzhou Academy of Fine Arts' School of Industrial Design, is an expert in user experience and interaction design, as well as the creator of the "Product Innovation Pathway" methodology. He has developed the eponymous Power of Innovation course series and brings two decades of hands-on experience in product innovation, having contributed to over 50 collaborative projects with leading companies such as BYD, Tencent, LG, and Samsung.

组织行为学十讲

Ten Lectures on Organizational Behavior



作者:孟亮、胡碧芸 Author: MENG Liang, HU Biyun ISBN: 9787302671039 Publication Date: 8/1/2024 Page Count: 504

About the Book:

This book is a business reading material based on the perspective of behavioral science. It describes the individual differences of employees at work, their attitude and emotions, perceptions and decisions in the organization, motivation and incentive, team management, leadership, work design and reshaping, upward management and stress management, and explains how to apply the principles and methods of social psychology to examines the psychologic status of employees in organizational management activities, in an effort to improve the effectiveness of both employees and organizations. By bringing in cutting-edge research results, introducing China's management practice, and leading the trend of future development, this book is sure to provide readers with a new perspective combining theory and practice in organizational management.

About Author:

Meng Liang is a professor and doctoral supervisor of Shanghai International Studies University, Head of the Department of Management and Organization, and Director of the Institute of Organizational Behavior and Organizational Neuroscience.

Hu Biyun is an assistant professor at the School of Business and Management, Shanghai International Studies University, and Ph.D. in Management from Temple University.

重企强国3

Pillar Enterprises Empower a Nation 3



作者:卢纯 Author: LU Chun ISBN: 9787302678182 Publication Date: 12/1/2024 Page Count: 416

About the Book:

This book centers on the theme of future development for Chinese enterprises, unified by the mission to advance China's global ascendancy, rejuvenate the Chinese nation, and foster a global community of shared destiny. It interconnects and integrates knowledge repositories, data-driven case studies, conceptual perspectives, and systematic mechanisms related to corporate evolution, thereby constructing a cognitive framework and analytical architecture for contemplating Chinese enterprises' developmental trajectory. By infusing this structure with original theoretical insights, practical wisdom, and value-driven propositions, the work pioneers innovative approaches to reimagining enterprise development. Through this conceptual exploration, it profoundly articulates the dual imperatives of "empowering enterprises to strengthen the nation" and "strengthening the nation through empowered enterprises".

About Author:

Lu Chun, Ph.D. in Management, graduated from Tsinghua University School of Economics and Management. Former Chairman of China Three Gorges Corporation, where he spearheaded the group's transformation into China's premier clean energy conglomerate.

行政法上合法预期之保护

Protection of Legitimate Expectations in Administrative Law



作者: 余凌云 Author: YU Lingyun ISBN: 9787302672081 Publication Date: 12:00:00 AM Page Count: 584

About the Book:

This work stands as the seminal monograph on the theory of protecting legitimate expectations, pioneering the first systematic, comprehensive, and in-depth study of this doctrine that extends beyond the United Kingdom to encompass legal frameworks in the EU, Australia, New Zealand, and Canada. Its core arguments were originally published in Social Sciences in China and honored with the First Prize in the 5th Qian Duansheng Prize for Outstanding Legal Research. Transcending mere examination of legitimate expectations, the book adopts a macro-comparative lens to analyze the distinctions and convergences among good faith principles, reliance protection, and legitimate expectations. It critically engages with China's practical implementation of trustworthy governance, conducts a comprehensive review of the introduction, application, and evolution of these doctrines within China's legal system, synthesizes legislative frameworks, theoretical advancements, and judicial practices nationwide, and offers profound reflections on the theoretical orientation of integrity-driven governance.

About Author:

Yu Lingyun, Professor and Doctoral Supervisor at Tsinghua University Law School, Director of the Public Law Research Center. His academic expertise spans administrative law, administrative litigation law, police legal studies, and digital governance under the rule of law. Serving as Vice President of the Administrative Law Society of the China Law Society, he has authored 13 monographs and published over 100 scholarly articles. 国有经济国别研究:德国、美国、蒙古、埃塞俄比亚、南非、 沙特阿拉伯、印度、印度尼西亚

Country Study of State-owned Economy: Germany, America, Mongolia, Ethiopia, South Africa, Saudi Arabia, India, and Indonesia



作者:薛健、周丽莎 Author: XUE Jian, ZHOU Lisha ISBN: 9787302657620 Publication Date: 8/1/2024 Page Count: 456

About the Book:

This book leverages state-owned economy datasets from international organizations including the Organisation for Economic Co-operation and Development (OECD), International Monetary Fund (IMF), and World Bank (WB), alongside official national statistics, to establish a cross-national database on state-owned economies. Through analyzing the evolutionary trajectories, current developmental statuses, and governance frameworks of state-owned sectors, it systematically investigates representative nations' state-owned economic systems. Featuring a multi-perspective examination and in-depth analysis of stateowned economies in eight countries—Germany, the United States, Mongolia, Ethiopia, South Africa, Saudi Arabia, India, and Indonesia—the work serves dual purposes: enhancing readers' comprehension of global SOE development landscapes while providing international perspectives to inform China's policymaking on SOE development and reform.

About Author:

Xue Jian, Professor and Doctoral Supervisor, serves as Associate Dean of Tsinghua University School of Economics and Management and Executive Deputy Director of Tsinghua China Institute for Modern State-Owned Enterprises.

Zhou Lisha, Research Director at Tsinghua China Institute for Modern State-Owned Enterprises, specializes in SOE corporate governance and equity incentive mechanisms.

法律不是冰冷的逻辑,而是公道自在人心

Law Is Not Cold Logic, But Justice Resides in **Human Hearts**



作者: 刘哲 Author: LIU Zhe ISBN: 9787302668343 Publication Date: 7/1/2024 Page Count: 122

About the Book:

The title of this book originates from the author's film review for Article 20 (Di Er Shi Tiao), reflecting his steadfast commitment to humanistic justice and extending the philosophy that "what you handle are not mere cases, but people's lives." The author advocates bridging the gap between societal perceptions of fairness and legal justice through compassionate engagement, ensuring that the public's innate sense of righteousness is reflected in realworld cases. He urges readers to trust that right and wrong, at their core, align with the principle that "justice resides in human hearts." The book also calls on legal professionals to practice empathy in their work—to interrogate the "why" behind each case, uphold a conscience-driven approach, and demonstrate through concrete examples that the law need not be devoid of humanity.

About Author:

Liu Zhe, a member of the first cohort of fully credentialed prosecutors at the Beijing People's Procuratorate, was selected in 2021 for the National Procuratorial Talent Pool for Ordinary Crime Prosecutions and designated as one of the inaugural instructors for the Supreme People's Procuratorate's "Practical Experts in Prosecutorial Affairs to Campus" program. He has handled high-profile cases such as the Shanxi Dam Collapse case and the appellate retrial protest case applying the "no additional punishment on appeal" principle, and spearheaded the design and development of the Criminal Prosecution Courtroom Competency Training Platform.

·瓶九蝎: 美国最高法庭经典判例选译

Nine Scorpions in a Bottle



作者: (美)胡果威 Author: HU Guowei (USA) ISBN: 9787302679035 Publication Date: 4/1/2025 Page Count: 632

About the Book:

The U.S. Supreme Court, composed of nine justices, has been likened to "nine scorpions in a bottle"-individuals who answer solely to the Constitution and the law, operating as independent and equal entities. The process of judicial decision-making unfolds within a complex institutional ecosystem: whether to grant certiorari, how to vote on cases, who drafts opinions... All these steps follow a robust framework of rules and procedures. Against this backdrop, the nine justices engage in intricate strategic interplay. In essence, nine scorpions share a single bottle, coexisting in a dynamic of collaboration and conflict. This book predominantly features highly contentious cases where rulings rarely offer blackand-white clarity, often residing in subjective gray areas. Only by scrutinizing full opinions word-for-word can one grasp that dissenting views frequently shine equally-and sometimes outshine-majority rationales.

About Author:

Hu Guowei holds a Master's in International Business from Columbia University's School of International and Public Affairs and a Juris Doctor from Cardozo School of Law, Licensed to practice law in New York State and the District of Columbia, he assisted Paramount Pictures in distributing films like Roman Holiday in mainland China. He previously served as legal counsel and president of Liantai High-Tech Corporation and as continuing legal advisor to Nan Hai Petroleum Holdings.

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Heart's Abyss



作者:赵婧 Author: ZHAO Jing ISBN: 9787302675952 Publication Date: 1/1/2025 Page Count: 342

About the Book:

Set against the backdrop of Jane, a Chinese-American psychotherapist practicing in San Francisco, Heart's Abyss chronicles her authentic experiences counseling clients from diverse backgrounds. Structured around a seven-week timeline, the book vividly portrays clinical scenarios with varied clients, showcasing the practical application of psychotherapy techniques through cinematic storytelling. Equal parts detailed case documentation, accessible guide to postmodern therapeutic methods, and profoundly human novel, it captures the sweeping emotional transformations of its subjects. Readers will witness the alchemy of therapy as clients navigate their darkest struggles, while also tracing Jane's own journey as she processes emotional burdens through clinical supervision — a parallel narrative of professional growth and existential awakening. This work serves as an indispensable resource for mental health practitioners, offering rare firsthand accounts of adolescent metamorphosis that will deeply resonate with parents, educators, and anyone pursuing personal reinvention.

About Author:

Zhao Jing holds a Master's in Counseling Psychology (Drama Therapy specialization) from the California Institute of Integral Studies and is currently pursuing a doctorate in Behavioral Science. As China's National Class-II Psychological Counselor, she specializes in marital/family dynamics, intimate relationships, developmental trauma, emotional regulation, and psychological rehabilitation, demonstrating exceptional clinical competence across these domains.

读懂情绪: 倾听身体的声音

Reading Emotions: Listening to Your Body



作者: 周频 Author: ZHOU Pin ISBN: 9787302677635 Publication Date: 2/1/2025 Page Count: 276

About the Book:

This richly textured work explores emotions across multiple dimensions-from their biological evolution and social constructs to embodied theory and the intricate relationship between emotions and language. Blending vivid case studies with rigorous research, the author transforms complex scientific theories into accessible wisdom, guiding readers not only through the scientific landscape of emotions but also toward practical skills in tuning into inner voices and refining emotional responses. Whether you're a psychology enthusiast, linguistics scholar, or a general reader seeking to enhance emotional regulation, this book offers tailored insights. Open its pages to decipher the lexicon of emotions, reconfigure your understanding of the mind, and learn to harmonize the synergy of body, culture, and brain, ultimately becoming the architect of your emotional life.

About Author:

Zhou Pin, a doctoral graduate of Fudan University and professor at the College of Foreign Languages, Shanghai Maritime University, mentored by Antonio Damasio, a worldrenowned leader in cognitive and affective neuroscience, member of the American Academy of Arts and Sciences, U.S. National Academy of Medicine, and European Academy of Arts and Sciences.

翼生于暗: 逆境中的成长之旅

Wings Born in Darkness: **A Journey of Growth Through Adversity**



作者:加林 Author: JIA Lin ISBN: 9787302681892 Publication Date: 1/1/2025 Page Count: 118

About the Book:

This book chronicles the transformative journey of an academically accomplished author who, after two years in the workforce, faced a series of professional setbacks. It reveals how adversity ignited her fighting spirit, driving her to reclaim confidence through selfredemption and relentless effort, ultimately achieving personal metamorphosis and renewed success. The title "Wings Born in Darkness" poignantly captures her refusal to surrender in life's darkest hours, symbolizing resilience and growth forged through struggle. The author's introspective reflections and hard-won lessons offer invaluable guidance for those entering or navigating early career stages. Written in vibrant prose with sharp insights and engaging readability, the book blends lively storytelling with philosophical depth. Its narrative is enriched by humorous yet philosophical comics that enhance the book's appeal.

About Author:

Jia Lin is a trader at a Wall Street proprietary trading firm, holding FINRA (Financial Industry Regulatory Authority) certifications including the Securities Industry Essentials (SIE) and Series 57 licenses for equity and options trading. He holds a Ph.D. in Economics from Northwestern University.

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破界创生:从清华钱学森到深圳零一学院的创生教育

Boundary-Breaking Innovation: Creative Education from Tsinghua's Qian Xuesen Class to Shenzhen's Zero-One Academy



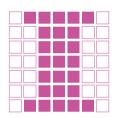
作者:郑泉水 Author: ZHENG Quanshui ISBN: 9787302683551 Publication Date: 3/1/2025 Page Count: 301

About the Book:

This book is Professor Zheng Quanshui's transformative work crystallizing decades of educational wisdom. Framed by the pioneering models of Tsinghua University's Qian Xuesen Class and Shenzhen's Zero-One Academy, it systematically dismantles the core mechanics of "innovative education" and delves into the "creative-generative education" framework. Centered on the philosophy of "boundary-breaking innovation," the book champions liberation from disciplinary silos, exam-driven constraints, and entrenched thinking patterns. Through vivid case studies - including project-based learning, interdisciplinary collaboration, and real-world problem-solving, it illustrates how to ignite students' intrinsic motivation and creativity while redefining pathways for talent development. Blending cutting-edge educational philosophy with replicable practical strategies, this landmark work marks a pivotal shift in China's innovative education from experimental pilot to replicable model, offering educators, parents, and policymakers fresh insights and directions for cultivating future innovators.

About Author:

Zheng Quanshui, former Chair of Tsinghua University's Department of Engineering Mechanics, Vice President of the Chinese Society of Theoretical and Applied Mechanics, and Editor-in-Chief of the society's flagship journals *Journal of Mechanics* and *Acta Mechanica Sinica*. His research focuses on foundational theories in mechanics, as well as the mechanics and physics of micro-nano interfaces.



信息 Information Technology

走向智治时代:人工智能赋能社会治理现代化

Towards the Era of Intelligent Governance



作者: 张成岗 Author: ZHANG Chenggang ISBN: 9787302638151 Publication Date: 7/1/2023 Page Count: 248

About the Book:

This book offers a profound interpretation of the logical tensions between governance theories and practices across multiple dimensions: the reconstruction of society and modernity, the new technological revolution and the modernization of social governance, the modern transformation of traditional Chinese society and the contemporary layout of social governance, and the evolution of Western social governance within the context of globalization. Grounded in clarifying the historical intersection of technological advancement and social governance, it further conducts specialized studies on emerging issues in social governance triggered by the new technological revolution. Through dissecting the multilayered relationships between "good governance" and "good intelligence", the work charts a future path for building an AI-enabled social governance system. The author's reflections on the modernization of social governance in the AI era, deeply rooted in his own practical experiences, stand as a rare and valuable contribution.

About Author:

Zhang Chenggang is a Professor at Tsinghua University's Department of Sociology, doctoral supervisor, and director of the Institute for Social Governance and Development. His research focuses on social governance and policy, risk and disaster studies, sociology of technology, and ethics of emerging technologies. As a visiting professor at institutions including the University of Illinois (USA), the French Ministry of Foreign Affairs and Fondation Maison des Sciences de l'Homme, and Sciences Po Paris, he also serves as an expert panel member for the United Nations' Conference on Technological Progress and Sustainable Development.

信

深度学习:从零基础快速入门到项目实践

Deep Learning: From Fundamentals to Project Practice



作者: 文青山 Author: WEN Oingshan ISBN: 9787302668602 Publication Date: 8/1/2024 Page Count: 540

About the Book:

This book begins with Python programming essentials, systematically advancing through machine learning and deep learning concepts while integrating algorithmic theory with practical code implementation. It strategically balances technical comprehension with progressive development of software engineering capabilities. Structured across six comprehensive chapters: Chapter 1 establishes foundational Python skills, covering syntax fundamentals and practical applications of data processing libraries (NumPy, Pandas, Matplotlib, OpenCV); Chapter 2 details machine learning algorithms through conceptual explanations paired with executable code samples; Chapter 3 explores deep learning frameworks (TensorFlow, Keras, PyTorch), demonstrating API utilization and neural network architecture design; Chapter 4 analyzes CNN variants through theoretical comparisons and hands-on implementations of classic classification networks; Chapter 5 deciphers target detection algorithms through principle breakdowns and step-by-step code debugging walkthroughs; Chapter 6 provides end-to-end guidance for developing and deploying real-world deep learning solutions. This resource serves aspiring learners entering deep learning, academic audiences (students and faculty), and industry professionals (engineers, researchers, and technicians) seeking practical reference material.

About Author:

Wen Qingshan possesses over a decade of expertise in IoT and AI system development, with extensive leadership experience directing R&D teams at BYD, Cathay Pacific, and Suishou Technology. His professional credentials encompass spearheading CMMI Level 3 and ISO 9001 certification initiatives, delivering proven results in industrial-scale deep learning deployments, and maintaining dual-domain proficiency spanning software quality assurance and full-cycle development management.

深度学习应用开发实践: 文本音频图像处理30例

Practical Development of Deep Learning Applications: 30 Cases of Text Audio Image processing



作者: 李永华、田云龙、许亮斌、苑世宁 Author: LI Yonghua, TIAN Yunlong, XU Liangbin, YUAN Shining ISBN: 9787302682660 Publication Date: 4/1/2025 Page Count: 648

About the Book:

This work methodically develops AI-powered modeling architectures aligned with cutting-edge advancements in artificial intelligence and machine learning, delivering practical implementations across core domains. Featured implementations encompass AI composition, speech recognition, portrait recognition, license plate recognition, skeleton recognition and limb localization, face recognition, and ancient poetry and lyrics generation. Structured through the integration of system design, code implementation, and demonstration of operational results, the text delivers concise yet thorough explanations. Its pedagogical value serves three distinct audiences: AI programming enthusiasts seeking practical guidance, academic institutions requiring reference materials for advanced courses, and technical professionals developing intelligent applications in industrial contexts.

About Author:

Li Yonghua, Professor at the School of Information and Communication, Beijing University of Posts and Telecommunications, brings over a decade of embedded systems expertise with specialized focus on IoT ecosystems, cloud computing infrastructures, and big data analytics. Having led or contributed to 30+ national research initiatives and corporate engineering programs, he has disseminated technical insights through 60+ peer-reviewed publications, secured 40+ industrial patents, and authored 30+ academic compendiums.

Learn Deep Learning with me



作者: 王成、黄晓辉 Author: WANG Cheng, HUANG Xiaohui ISBN: 9787302684145 Publication Date: 3/1/2025 Page Count: 652

About the Book:

This book systematically introduces fundamental deep learning concepts through a progressive approach that combines mathematical rigor with visual learning methodologies. Featuring practical examples implemented in PyTorch—the widely adopted, beginner-friendly deep learning framework—it enables readers to simultaneously grasp algorithmic theory and real-world implementation techniques. Organized into 10 chapters across three thematic sections, the content covers: the historical evolution of deep learning with environment configuration guidance; essential theoretical foundations; and practical applications of deep learning technologies in natural language processing. With abundant illustrative diagrams and accessible explanations of both conceptual principles and executable code samples, this work serves as an authoritative educational resource for academic courses and professional training programs, while also providing practical reference value for engineers and researchers exploring deep learning implementations.

About Author:

Wang Cheng is a Natural Language Processing Engineer at SPD Bank's Innovation Research Center and a regular contributor to machine learning columns on CSDN and Zhihu platforms, focusing on technical principle dissemination for machine learning and deep learning systems.

Huang Xiaohui is a Professor at East China Jiaotong University's School of Information Engineering and a Visiting Scholar at Nanyang Technological University's School of Computer Science and Engineering, conducting sustained research in deep learning and machine learning methodologies with multiple patented inventions in these domains.

全解深度学习——九大核心算法

Deep Learning: Nine Core Algorithms



作者:于浩文 Author: YU Haowen ISBN: 9787302679103 Publication Date: 12:00:00 AM Page Count: 300

About the Book:

This comprehensive guide navigates the mathematical foundations and theoretical frameworks of deep learning while systematically examining nine pivotal algorithms that span both fundamental and advanced concepts in the field. As of 2024, the nine algorithms presented encompass nearly all landmark and state-of-the-art methodologies in deep learning. The text establishes foundational knowledge in Chapters 1-2, detailing mathematical principles and core neural network architectures. Beginning with Chapter 3, it progresses to neural network variants central to modern implementations: convolutional neural networks (CNNs), recurrent neural networks (RNNs), encoder-decoder models, transformer architectures, generative adversarial networks (GANs), and diffusion models. Each chapter elucidates theoretical frameworks and technical innovations while demonstrating practical applications across domains like natural language processing and computer vision through concrete case studies. The latter portion explores cutting-edge frontiers including graph neural networks and reinforcement learning paradigms. Designed as a versatile resource, this book serves undergraduate and graduate students as well as industry professionals seeking rigorous yet accessible insights into deep learning.

About Author:

Yu Haowen, holder of dual First-Class MSc degrees in Artificial Intelligence (University of Southampton) and Bioinformatics & Systems Biology (University of Manchester), cofounded Hunan Diantou Education Technology Co., Ltd. and has authored multiple papers in SCI and IEEE-indexed journals, alongside holding one national technology patent.

信

机器学习

Machine Learning



作者:张旭东 Author: ZHANG Xudong ISBN: 9787302676300 Publication Date: 11/1/2024 Page Count: 440

About the Book:

This book offers a detailed exposition of machine learning fundamentals and core algorithms, delivering in-depth analyses of widely implemented classical methods including linear regression, logistic regression, Naive Bayes, and unsupervised learning techniques. Six dedicated chapters provide comprehensive coverage of deep learning and deep reinforcement learning. These sections not only rigorously examine foundational architectures—backpropagation algorithms, multilayer perceptrons, convolutional neural networks (CNNs), recurrent neural networks (RNNs), and long short-term memory networks (LSTMs)—but also address evolving research frontiers such as Transformer architectures, large-scale models, and deep generative models. The reinforcement learning segment systematically progresses from classical tabular methods to detailed examinations of deep reinforcement learning textbook, this work serves advanced undergraduates, graduate students, and technical professionals seeking structured guidance in both theoretical principles and algorithmic implementations. Its balanced pedagogical approach supports both academic instruction and self-directed mastery of machine learning concepts.

About Author:

Zhang Xudong, Tenured Professor and Doctoral Supervisor at Tsinghua University's Department of Electronic Engineering, specializes in signal processing and machine learning. Having led dozens of national and provincial research initiatives and industry collaborations, he has authored over 180 academic papers and eight technical books. He has won Elsevier's Most Cited Paper Award.

Information Technology

机器学习:从公理到算法(第2版)

Machine Learning: From Axioms to Algorithms (Second Edition)



作者:于剑、景丽萍 Author: YU Jian, JING Liping ISBN: 9787302682561 Publication Date: 2/1/2025 Page Count: 253

About the Book:

This book presents an axiomatic exploration of learning algorithms through 17 chapters organized in two parts. The first part establishes machine learning axioms and theoretical derivations, encompassing Chapters 1, 2, 6, and 8. These chapters formulate learning axioms while developing corresponding clustering and classification theories. The second part systematically derives classical learning algorithms from axiomatic foundations, addressing single-class, multi-class, and multi-source problem domains. Chapters 3-5 focus on single-class problems, respectively examining density estimation, regression analysis, and dimensionality reduction techniques for single-class datasets. Chapters 7 and 9-16 concentrate on multi-class scenarios, presenting classical algorithms including clustering methods, neural networks, K-nearest neighbors, support vector machines, logistic regression, Bayesian classification, decision trees, along with multi-class dimensionality reduction and enhancement approaches. Chapter 17 explores learning methodologies for multi-source data integration. Serving as a graduate-level textbook, this work is suitable for students in computer science, automation, mathematics, statistics, artificial intelligence, and related disciplines. It also provides valuable reference material for machine learning practitioners.

About Author:

Yu Jian is Professor and Doctoral Supervisor at Beijing Jiaotong University's School of Computer Science, where he serves as Director of the Artificial Intelligence Institute. He holds dual distinctions as Fellow and Deputy Secretary-General of the Chinese Association for Artificial Intelligence (CAAI). Having led multiple National Natural Science Foundation of China projects, Prof. Yu has authored numerous scholarly publications in premier venues including TPAMI and CVPR.

机器学习与推理

Machine Learning and Reasoning



作者: 俞成浦、陈文颉、邓方 Author: YU Chengpu, CHEN Wenjie, DENG Fang ISBN: 9787302668657 Publication Date: 8/1/2024 Page Count: 328

About the Book:

This book is structured in two distinct sections. The first section systematically presents core theories and methodologies in machine learning, spanning statistical decision frameworks, supervised/unsupervised learning paradigms, deep learning architectures, and approximate inference techniques. It further expands into cutting-edge domains such as transfer learning, lifelong learning systems, graph neural networks, and deep belief networks. The second section rigorously examines fundamental theories and methodologies for model inference, detailing implementations of static statistical models, probabilistic graphical models, Markov models, and Markov decision processes. Every chapter incorporates practice exercises and curated reference lists, while appendices contain essential foundational knowledge required for studying this material. Serving as a vital academic resource, this work supports research endeavors for undergraduate and graduate scholars specializing in machine learning, pattern recognition, and system identification.

About Author:

Yu Chengpu, Professor and Doctoral Supervisor at Beijing Institute of Technology, has dedicated his career to system modeling and control. His research contributions include over 20 first-authored SCI-indexed publications, featuring two ESI Hot Papers.

Chen Wenjie, Associate Professor at Beijing Institute of Technology, specializes in deep learning, target detection, and recognition. With an extensive academic portfolio, he has authored more than 50 peer-reviewed publications and holds 20+ granted patents.

Deng Fang, Professor and Doctoral Supervisor at Beijing Institute of Technology, pioneers research in autonomous intelligent swarm systems and wearable ubiquitous computing.

演化机器学习(第2版)

Evolutionary Machine Learning (Second Edition)



作者:徐华 Author: XU Hua ISBN: 9787302682080 Publication Date: 3/1/2025 Page Count: 304

About the Book:

This monograph systematically investigates fundamental challenges in evolutionary machine learning through three methodological dimensions. The 20-chapter volume is organized into three thematic sections. Part I (Chapters 1-6) advances estimation of distribution algorithms (EDAs) through three key innovations: a two-layer EDA framework leveraging conjugate prior distributions, a quantum evolutionary algorithm incorporating linkage learning, and an adaptive problem-size mechanism for decomposition-based multiobjective EDAs. Part II (Chapters 7-13) develops evolutionary integration strategies that unify classifier construction and feature subset search processes within an evolutionary machine learning framework, achieving simultaneous improvements in prediction accuracy and computational efficiency. Part III (Chapters 14-20) establishes EDA-based learning classifiers through rule space quality optimization, presenting novel methodologies specifically engineered for classification problem domains.

About Author:

Xu Hua, Ph.D., graduated from the Department of Computer Science and Technology at Tsinghua University in 2003. He is currently a tenured associate professor and doctoral advisor in the same department at Tsinghua University.

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机器学习经典算法与案例实战

Classical Algorithms and Case Studies in Machine Learning



作者:袁建军 Author: YUAN Jianjun ISBN: 9787302662082 Publication Date: 7/1/2024 Page Count: 187

About the Book:

This book enables readers to better grasp mainstream algorithms through the analysis of practical cases. The first part (Chapter 1) serves as the theoretical foundation, emphasizing the development and mainstream applications of machine learning, and also provides detailed instructions on setting up the runtime environment for all cases in the book. The second part (Chapters 2-7) focuses on supervised learning models, introducing the basic principles of Bayesian classifiers, linear models, decision trees, K-nearest neighbors, support vector machines, and random forests. The third part (Chapters 8-9) delves into unsupervised learning models, providing detailed explanations of dimensionality reduction and K-means clustering. The fourth part (Chapters 10-12) covers neural networks and deep learning, introducing several currently popular neural network and deep learning architectures. This book is suitable as a textbook for computer science and artificial intelligence majors at various universities and colleges. It also serves as a reference for developers, technology professionals, and researchers in the fields of artificial intelligence and data mining.

About Author:

Yuan Jianjun is a foreign academician of the Russian Academy of Natural Sciences, a professor and doctoral supervisor at Shanghai University, and the deputy director of the Shanghai Robot Research Institute.

机器学习(全彩图解+微课+Python编程)

Visualizations for Machine Learning



作者:姜伟生 Author: JIANG Weisheng ISBN: 9787302666769 Publication Date: 8/1/2024 Page Count: 555

About the Book:

This book is the final volume of the "Iris Mathematics Series: From Arithmetic to Machine Learning". While the first six volumes addressed challenges in programming, visualization, mathematics, and data, this volume embarks on a learning journey through classical machine learning algorithms. Structured around 24 thematic units corresponding to four major categories of machine learning algorithms (regression, classification, dimensionality reduction, and clustering), it covers techniques including regression analysis, multiple linear regression, nonlinear regression, regularized regression, Bayesian regression, Gaussian processes, k-nearest neighbors classification, and naive Bayes classification. The selected algorithm models comprehensively align with the Scikit-Learn library's core machine learning functions, enabling readers to grasp algorithmic theory while bridging practical applications. The book also provides balanced mathematical derivations and extended readings, making it particularly suitable for machine learning beginners, transitioning junior programmers, advanced data analysts, and practitioners seeking algorithmic mastery.

About Author:

Jiang Weisheng, PhD, FRM, is passionate about knowledge visualization and open-source sharing. Since August 2022, he has openly shared the "Iris Book Series" learning resources on GitHub, including over 5,000 pages of PDFs, 5,000+ vector graphics, and approximately 3.000 code files as of May 2024. These materials have attracted tens of thousands of global readers and achieved a GitHub global ranking within the TOP100.

信

人工智能的数学基础——数据之本

The Mathematical Foundation of Artificial Intelligence: The Essence of Data



作者: 于江生 Author: YU Jiangsheng ISBN: 9787302627357 Publication Date: 8/1/2024 Page Count: 572

About the Book:

This work chronicles seminal contributions to modern statistics through the intellectual rivalry of Ronald A. Fisher and Jerzy Neyman, two titans of 20th-century statistical theory. Though united as Frequentist school proponents and critics of Bayesian methodology, their spirited academic debates continue yielding valuable insights. In the 21st century defined by artificial intelligence and big data convergence, critical questions emerge: How might statistics and computer science synergize for mutual advancement? What perspectives should AI practitioners adopt when approaching data and analytics? Numerous statistical applications warrant profound contemplation. The text aims to cultivate statistical literacy among general readers while advancing AI and big data innovation. Serving as a gateway to statistical machine learning, it bridges classical statistical frameworks with this interdisciplinary frontier.

About Author:

Yu Jiangsheng holds a Ph.D. in Applied Mathematics, with extensive academic experience spanning Peking University, the University of Kansas, and Wayne State University. His research portfolio encompasses artificial intelligence, statistical machine learning, Bayesian data analysis, computational linguistics, image processing, and bioinformatics. He previously led Huawei's 2012 Poisson Laboratory as Director and Chief AI/ML Scientist, and currently serves as Chief Scientist at Futurewei.

人工智能与模式识别

Artificial Intelligence and Pattern Recognition



作者: 陈浩、杜春、李沛秦、熊伟 Author: CHEN Hao, DU Chun, LI Peigin, XIONG Wei ISBN: 9787302672609 Publication Date: 9/1/2024 Page Count: 276

About the Book:

As a pivotal discipline within artificial intelligence, pattern recognition serves as a critical enabler of machine intelligence. This foundational textbook systematically introduces fundamental AI knowledge related to pattern recognition (including intelligent agents, deterministic knowledge representation and reasoning, search strategies, and computational intelligence techniques), feature extraction and selection methods, along with typical pattern recognition models and algorithms (discriminant function-based classification approaches, probability-based classification methods, artificial neural networks, and clustering analysis). Designed for academic instruction, this resource supports undergraduate/graduate curricula in electronics, computer science, automation, and allied disciplines. Engineering professionals and researchers will value its applied perspectives on machine learning, data mining, and intelligent system implementation.

About Author:

Chen Hao, Professor at the National University of Defense Technology's College of Electronic Science, maintains an active research portfolio in artificial intelligence and pattern recognition systems. His scholarly output in the past 5 years includes 20+ SCIindexed publications and 10+ EI conference papers, complemented by 20+ patented inventions and one monograph in English and one in Chinese.

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人工智能引论

Introduction to Artificial Intelligence



作者:张长水 Author: ZHANG Changshui ISBN: 9787302662761 Publication Date: 7/1/2024 Page Count: 212

About the Book:

This authoritative primer systematically examines artificial intelligence through methodically structured content and accessible yet rigorous exposition, establishing itself as an essential gateway to AI fundamentals. Employing a learner-centric approach, the text immerses readers in AI's conceptual landscape while cultivating intellectual curiosity about technological frontiers. Organized into twelve progressive chapters, the work begins with historical contextualization: The inaugural chapter traces the evolution of artificial intelligence, followed by comprehensive explorations of core technical domains, including algorithmic search, computer vision, auditory computing, natural language processing and understanding, knowledge representation and acquisition, machine learning, inference systems, multimodal analytics, multi-agent architectures, trust verification mechanisms, and AI ecosystem dynamics. Designed for dual academic pathways, this volume functions both as a primary textbook for AI, computer science, and automation curricula, and as a cross-disciplinary foundation for non-engineering students pursuing technological literacy.

About Author:

Zhang Changshui, Professor, Department of Automation, Tsinghua University, brings three decades of pedagogical expertise in "Introduction to Artificial Intelligence" and twenty-five years instructing "Pattern Recognition". An IEEE Fellow and Senior Member of the Computer Society, his scholarly credentials include editorial service for IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI) and authorship of 130+ peer-reviewed journal articles alongside 50+ conference publications.

生成式人工智能素养

Generative Artificial Intelligence Literacy



作者: 曾文权、王任之、苑占江、张启项、王羿夫 Author: ZENG Wenguan, WANG Renzhi, YUAN Zhanijang, ZHANG Ojxjang, WANG Yifu ISBN: 9787302667797 Publication Date: 8/1/2024 Page Count: 236

About the Book:

Building upon the essential competencies required for college students in the AI era, this book centers on practical case studies to demonstrate how generative AI (AIGC) enhances learning, professional work, daily life, and specialized domains. Key content areas include: exploring AI's transformative potential, cultivating core competitive skills for the AI age, text generation through AIGC, AIGC-driven data processing, image creation via AIGC, speech synthesis technologies, video production applications, intelligent agent systems, and the ethical considerations and responsibilities inherent to AIGC. This resource serves dual educational purposes: as a core textbook for AI literacy curricula in higher vocational institutions, application-oriented universities, and secondary vocational schools; and as both a self-directed learning guide for improving personal generative AI proficiency and an instructional manual for professional training organizations.

About Author:

Zeng Wenquan, Professor, is a member of the Computer Vocational Education Teaching Guidance Committee (Ministry of Education), Vice Chair of the Vocational Education Development Committee (Chinese Computer Society), principal investigator for 22 national and provincial teaching and research initiatives, editor-in-chief of 8 published textbooks (including 2 nationally planned publications), and author of 22 academic papers (10 in coreindexed journals).

AI创造力:智能产品设计与研究

AI Creativity: Intelligent Product Design and Research



作者:吴卓浩 Author:WU Zhuohao ISBN: 9787302662440 Publication Date: 9/1/2024 Page Count: 229

About the Book:

Amidst accelerating advancements in artificial intelligence (AI) and growing imperatives to transform technological breakthroughs into commercialized solutions, this work addresses the critical demand for structured intelligent product design frameworks and competency development in next-generation innovators. Synthesizing recent AI breakthroughs, the text methodically traces the vertical historical evolution of intelligent product development while mapping its horizontal industry applications. Through multidimensional analysis, it examines diverse implementation contexts, methodological workflows, and capabilitybuilding strategies for AI-driven design ecosystems. The book's structure progresses across four chapters. Chapter 1 explores emerging trajectories in intelligent product innovation, while Chapter 2 delves into strategic analysis and project orchestration. Chapter 3 advances into practical design implementations through case studies, culminating in Chapter 4's roadmap for professional trajectories within AI-augmented design industries. Featuring extensive real-world applications, each chapter concludes with discussion prompts and applied exercises, culminating in advanced project challenges for skill integration. The text serves dual purposes as core curriculum material for university programs in design studies and computational disciplines, and as an essential reference for practitioners. Its insights empower design professionals and product strategists, tech-oriented engineers and operational teams, as well as cross-disciplinary innovators navigating the convergence of AI and design.

About Author:

Wu Zhuohao, Associate Professor at the Communication University of China, brings multifaceted expertise as Deputy Director of Tsinghua Academy of Arts & Sciences' Sci-Tech Cultural Innovation Center and Chief Scientist and Co-Founder of Aipalan Creativity Technology. He previously served as Vice President of Sinovation Ventures AI Engineering Institute, led product design teams for Google and Airbnb China, and mentored technological development for hundreds of enterprises.

AI大模型:赋能通信产业

AI Large Models: Empowering the Communications Industry



作者:曾捷、杨一帆、粟欣、吕铁军、钟怡、袁昕 Author: ZENG Jie, YANG Yifan, SU Xin, Lu Tiejun, ZHONG Yi, YUAN Xin ISBN: 9787302689744 Publication Date: 6/1/2025 Page Count: 208

About the Book:

In recent years, with the advancement of artificial intelligence technology, GPT-based large models represented by ChatGPT have demonstrated formidable capabilities in content comprehension and generation, garnering widespread attention across industries while presenting new opportunities and challenges for the communications sector. This book traces the evolution of GPT, details its practical applications in empowering the communications industry, explores future trends and critical issues in the integration of "GPT + communications," and concludes with actionable development recommendations. Tailored for technical professionals and managers in information and communications fields, it also serves as a reference for graduate and doctoral students specializing in communications, electronics, computer science, automation, cybersecurity, and related disciplines at universities.

About Author:

Zeng Jie, Associate Professor, Special Research Fellow, and doctoral supervisor at Beijing Institute of Technology, holding dual PhDs in Communications and Computer Science. His research focuses on the integration of large AI models with communications.

Yang Yifan is a doctoral candidate at Beijing Institute of Technology's School of Cybersecurity.

Su Xin is a Professor at Tsinghua University's Department of Electronic Engineering and Deputy Director of the Wireless and Mobile Communication Technology Research Center.

Lu Tiejun, Professor, doctoral supervisor, and Academic Committee member at Beijing University of Posts and Telecommunications.

Zhong Yi, Tenured Associate Professor and doctoral supervisor at Beijing Institute of Technology.

深入浅出人工智能: AI入门的第一本书

Demystifying Artificial Intelligence: The First Book for AI Beginners



作者:张川、陈海林、朱振宇 Author: ZHANG Chuan, CHEN Hailin, ZHU Zhenyu ISBN: 9787302686750 Publication Date: 4/1/2025 Page Count: 320

About the Book:

Artificial Intelligence (AI) technology is sweeping the globe. While individuals eager to quickly grasp its fundamentals and enter this promising field often struggle with foundational gaps and the industry's technical jargon, this book bridges the divide. Starting with basic concepts and grounding explanations in real-life scenarios from daily work and life, it explains AI principles in an accessible way. Even readers with zero technical background can swiftly grasp core ideas, completing their entry into AI learning. Covering essential technologies like AI fundamentals, machine learning, and neural networks, this book is tailored for IT professionals, business executives, university students, and beyond.

About Author:

Zhang Chuan, Doctor of Engineering, studied at Xi'an University of Architecture and Technology and Beijing University of Posts and Telecommunications. He has held key roles at multiple Fortune 500 companies, where he led and successfully developed industry-leading smart products, including the world's first smart TV and smart air conditioner.

Chen Hailin, Doctor of Engineering, graduated from Shanghai Jiao Tong University and has dedicated his career to AI, industrial internet, and smart home R&D.

Zhu Zhenyu, a Tsinghua University graduate, focuses on commercializing AI products and driving their real-world adoption.

真红利: 一本书讲透AI时代的风口

True Dividends: Demystifying the AI Era's Golden Opportunities



作者:秋叶 Author: QIU Ye ISBN: 9787302684114 Publication Date: 3/1/2025 Page Count: 176

About the Book:

This book aims to help you recognize AI, understand AI, and learn how to embrace AI. The author avoids technical jargon and speaks plainly in everyday language. Easy to grasp, this book equips you to seize genuine opportunities, perfect for anyone eager to engage with AI.

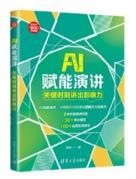
About Author:

Qiu Ye, founder of the Qiu Ye brand and author of bestselling titles including AI Writing Unlocked, AI Questioning Unlocked, and AI Copywriting Unlocked.

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AI赋能演讲:关键时刻讲出影响力

AI-Empowered Public Speaking: Delivering Impact in Critical Moments



作者:田楠 Author:TIAN Nan ISBN:9787302681168 Publication Date: 3/1/2025 Page Count: 248

About the Book:

Combining AI's powerful capabilities with the profound art of public speaking, this book offers a comprehensive, practical guide. The AI Cognition section introduces the "4W Method" for effective AI dialogue. The AI Strategy section breaks down four key skills - insightful delivery, confident articulation, strategic framing, and fearless expression - analyzing every aspect of speeches, from topic selection to solid structure-building and clever opening and closing designs. The AI Practice section specifically demonstrates how to use AI tools to effortlessly draft speeches for eight common scenarios: work reports, project plans, annual reviews, promotion pitches, trainer lectures, speech competitions, sales presentations, and impromptu talks. Whether you're a novice or a seasoned speaker, this book will become your essential toolkit for honing skills and showcasing charisma.

About Author:

Tian Nan, public speaking coach, corporate trainer at a large state-owned enterprise, certified instructor for Fortune 500 companies, CIP-certified international trainer, and KVP education expert at Kingsoft Office. Specializing in AI-powered speech enhancement, she helps learners elevate their speaking skills.

AI+人力资源管理:HR进阶实践

AI + Human Resource Management: Advanced Practices for HR Professionals



Vietnamese Rights Sold

作者:梁咏峰 Author: LIANG Yongfeng ISBN: 9787302678359 Publication Date: 12/1/2024 Page Count: 284

About the Book:

In the rapidly evolving digital age, AI-as a revolutionary technology-is profoundly reshaping how industries operate and manage. In human resource management, AI not only enhances efficiency and precision but also unlocks innovative growth potential for businesses. This book focuses on AI applications in HR, divided into three parts: Trends, Practical Strategies, and Empowerment. Trends explores how HR can better integrate AI into daily workflows. Practical Strategies demonstrates AI's role in empowering talent management across recruitment, development, deployment, and retention. Empowerment centers on AI-driven organizational efficiency, explaining its impact on systems, operations, culture, and services to help HR deepen business acumen and boost employee loyalty. Packed with real-world cases and insights, it's tailored for corporate leaders, HR practitioners, and anyone interested in modern HR practices.

About Author:

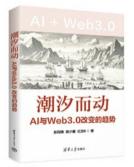
Liang Yongfeng, founder and chairman of Hainan Yongfeng Investment Co. and Zhaoen Intelligent Technology (Shandong) Co., angel investor, inaugural expert at the General Aviation Low-Altitude Economy Think Tank, and council member of the China Information Association. With over a decade of executive experience at companies like Ruijie Networks, Huawei, H3C, ZTE, and MissFresh, he brings extensive HR management expertise.

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Information Technology

潮汐而动——AI与Web3.0改变的趋势

Tides of Change: AI and Web3.0 Reshaping Trends



作者: 张则扬、吴少康、G2M Author: ZHANG Zeyang, WU Shaokang, G2M ISBN: 9787302680758 Publication Date: 3/1/2025 Page Count: 130

About the Book:

This book explores the convergence of Web3.0 and AI. Spanning 10 chapters, it begins with the evolution of Web3.0 and the concept of the Value Internet in Chapter 1. Chapter 2 delves into NFTs (Non-Fungible Tokens) as digital collectibles. Chapter 3 examines how blockchain technology reconstructs immersive 3D spaces in the metaverse. Chapter 4 analyzes the integration of online gaming with Web3.0 paradigms. Chapter 5 explores DAOs (Decentralized Autonomous Organizations) as starfish-like distributed entities. Chapter 6 decodes DeFi (Decentralized Finance) for blockchain-based credit systems. Chapter 7 clarifies DIDs (Decentralized Identifiers) for on-chain digital identities. Chapter 8 investigates SocialFi's blockchain-powered content protection and networking. Chapter 9 forecasts AI-enhanced smart value creation in Web3.0 ecosystems. Chapter 10 assesses global regulatory frameworks and prospects for Web3.0.

About Author:

Zhang Zeyang, Founding Partner of EVA Ventures and Investment Director at YuFeng Capital, specializes in hard-tech and Web3 investments, having backed MetaEstate during its early stages.

Wu Shaokang, Founder & Chief Analyst of Tide Capital, oversees Web3.0 project investments and trading with extensive sector expertise.

Guo Weipeng (G2M), leads an AI/Web3-focused early-stage investment firm driving AGI innovation through value internet paradigms.

人工智能新时代:核心技术与行业赋能

Artificial Intelligence in the New Era: Core Technologies and Industry Empowerment



作者: 郭哲滔、任宇翔 Author: GUO Zhetao, REN Yuxiang ISBN: 9787302653943 Publication Date: 5/1/2024 Page Count: 252

About the Book:

This book centers on artificial intelligence. The upper section presents theoretical foundations and strategic development roadmaps for AI, aiming to help readers understand the technology and identify pathways to enter the field. The middle section outlines cuttingedge technologies that empower AI advancements, including Natural Language Processing (NLP), Machine Learning, Big Data, the Internet of Things (IoT), and Blockchain. The lower section examines AI's transformative impact and commercial applications across industries such as transportation, agriculture, healthcare, manufacturing, education, finance, and entertainment, revealing how AI drives real-world business value. From multiple perspectives, this book paints a comprehensive and accessible blueprint for AI's evolution, blending clarity with engaging insights. It stands as an essential reference for exploring the AI landscape, ideal for internet industry leaders, entrepreneurs, AI researchers, and anyone curious about artificial intelligence.

About Author:

Guo Zhetao, founder, chairman, and CEO of Pocket Space, is a certified Google Cloud and Microsoft Cloud architecture expert, executive committee member of the China Computer Federation (CCF) Software Engineering Specialized Committee, and an innovation and entrepreneurship mentor at Peking University's startup incubator. He has secured over seventy core independent intellectual property rights.

Ren Yuxiang, Doctor of Education and founder/CEO of Beijing Dianjing Ciyuan Culture Communication Co., Ltd., has attracted strategic investments from companies like Qihoo 360 and 37 Interactive Entertainment.

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人工智能的底层逻辑

The Underlying Logic of Artificial Intelligence



作者:张长水 Author: ZHANG Changshui ISBN: 9787302674887 Publication Date: 10/1/2024 Page Count: 312

About the Book:

The book introduces the fundamental algorithms and mathematical models of artificial intelligence systems such as search, computer vision, hearing, natural language processing, machine learning, multimodal information processing, etc.

About Author:

Zhang Changshui, Professor, Department of Automation, Tsinghua University, brings three decades of pedagogical expertise in "Introduction to Artificial Intelligence" and twenty-five years instructing "Pattern Recognition." An IEEE Fellow and Senior Member of the Computer Society, his scholarly credentials include editorial service for IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI) and authorship of 130+ peer-reviewed journal articles alongside 50+ conference publications.

算法不难

Algorithms Made Easy: Illustrations and Python



作者:林进威 Author: LIN Jinwei ISBN: 9787302675099 Publication Date: 11/1/2024 Page Count: 304

About the Book:

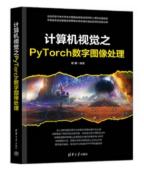
The book is divided into five chapters. Chapter 1 introduces basic algorithm concepts and design principles. Chapter 2 covers 10 sorting algorithms, including bubble sort, selective sort, insertion sort, hill sort, subsumption sort, quick sort, heap sort, counting sort, bucket sort, and base sort. Chapter 3 introduces graph algorithms, including path search, breadthfirst search, depth-first search, minimum generator search, single-source shortest path, and other common graph algorithms. Chapter 4 discusses string processing algorithms, covering string basics, judgment, matching, sorting, and compression. Chapter 5 presents nine algorithmic ideas: enumeration, recursion, iteration, partitioning, greedy programming, dynamic programming, iteration and backtracking simulation.

About Author:

Lin Jinwei, a CSDN expert and long-term professional member of IEEE and ACM, has served as an AI research assistant in the Peacock Team at Southern University of Science and Technology and as an AI design engineer at the Shenzhen Big Data Research Institute of The Chinese University of Hong Kong, Shenzhen. With over 10 papers published in international journals including IEEE and ACM, he has filed 15 national patent applications and is proficient in 15 programming languages spanning computer science and electronics.

计算机视觉之PyTorch数字图像处理

PyTorch Digital Image Processing for Computer Vision



作者:侯伟 Author: HOU Wei ISBN: 9787302671985 Publication Date: 9/1/2024 Page Count: 268

About the Book:

This book delves into AI painting applications across five key dimensions - current industry status, model architecture/fine-tuning, practical techniques, creative design methodologies, and implementation scenarios, comprehensively covering mainstream AI painting use cases, while serving as an advanced skill-building resource. Through diverse application contexts, the text demonstrates creative workflows combining Photoshop AI, Midjourney, and web UI platforms (including Stable Diffusion, Kantu, Hunyuan, and Flux) with multi-strategy problem-solving approaches. Supplementary resources include tutorial videos, curated training datasets, prompt libraries, plugin installations, and auxiliary materials designed to optimize learning efficiency through visual demonstration.

About Author:

Hou Wei, Ph.D. in Engineering, contributes to China's PaddlePaddle deep learning framework. Currently teaching image processing and deep learning courses at North China University of Science and Technology's College of Science, he conducts research in digital image processing for industrial machine vision systems. His credentials include five peer-reviewed publications, two invention patents, one software copyright certification, and co-authorship of an academic textbook.

智能聊天机器人技术内幕:探索人机对话的微观世界

The Inside Story of Intelligent Chatbot Technology: **Exploring the Microcosm of Human-Machine Dialogue**



作者:刘聪、张瀚林 Author: LIU Cong, ZHANG Hanlin ISBN: 9787302675303 Publication Date: 11/1/2024 Page Count: 276

About the Book:

Human-machine dialogue stands as a pivotal branch within artificial intelligence frameworks and one of its most extensively deployed application domains. This work traces the evolutionary trajectory of human-robot interaction, systematically dissecting both macro-level system architectures and granular functional mechanisms. Organized into 11 chapters, the book progresses as follows. Chapters 1-2 outline the historical development and foundational architecture of conversational AI systems. Chapters 3-8 detail comprehensive methodologies for constructing dialogue platforms, addressing three core components: user intent parsing, response strategy formulation, and contextaware answer generation. Chapters 9-10 explore essential algorithms and model-centric infrastructure required for robust dialogue system implementation. Chapter 11 examines the integration of large language models, exemplified by ChatGPT, into modern humancomputer interaction paradigms. Tailored for AI practitioners with domain expertise and enthusiasts of conversational technologies, this volume serves as both technical reference and implementation guide.

About Author:

Liu Cong directs JD Technology's Intelligent Customer Service Platform R&D division, having spearheaded flagship projects including JD IOU, financial user ecosystems, JD Pay marketing solutions, and AI-driven banking chatbots.

Zhang Hanlin is a chief architect at a major state-owned bank's software development center, previously serving as technical architect for JD Technology's Financial AI Customer Service product line.

大话计算机科学:生活中的计算思维

Demystifying Computer Science: Computational Thinking in Life



作者: 商静波 赵馨 著、费赛尔 绘 Author: SHANG Jingbo, ZHAO Xin, Faisel (Illustrator) ISBN: 9787302671992 Publication Date: 9/1/2024 Page Count: 280

About the Book:

This work demystifies 38 computer science concepts through relatable real-world scenarios, eliminating complex formulas and code while spanning programming, data structures, algorithms, data science, machine learning, information security, and allied disciplines. Combining engaging narratives with vivid illustrations, the text ensures intuitive comprehension of technical principles through visually enriched explanations. Ideal for high school students and general readers curious about computing fundamentals, it serves dual purposes as core material for computer science introductory curricula and general education electives across disciplines.

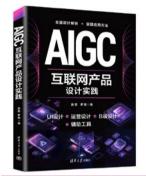
About Author:

Shang Jingbo, Tenured Professor at UC San Diego's Department of Computer Science and Halicioğlu Data Science Institute, pioneers industry-adopted research in data mining, NLP, and large language models, recognized through honors including the NSF CAREER Award. Zhao Xin, legal professional with cross-sector experience spanning Fortune 500 corporations, startups, and publicly traded enterprises in both Chinese and American markets.

Faisel, Cartographic editor currently engaged in geospatial content development, holds an undergraduate degree from the China Academy of Art.

AIGC互联网产品设计实践

AIGC in Internet Product Design: Practical Guide



作者:赵懿、罗慧 Author: ZHAO Yi, LUO Hui ISBN: 9787302679950 Publication Date: 2/1/2025 Page Count: 312

About the Book:

This book comprises six chapters: Chapter 1 "Understanding AIGC" establishes foundational knowledge, covering basic concepts, technical principles, and development trends. Chapter 2 "Midjourney Image Generation Essentials" dissects core features and operational techniques for precise output control. Chapters 3-6 are practical sections covering multiple areas of internet product design, including UI design, operational design, and B-end design, introducing commonly used auxiliary tools to help readers find suitable methods and techniques, making work more creative and efficient.

About Author:

Zhao Yi (Clippp), Design Manager at a Fortune 500 company, YouShe's 2022 Top 10 Author & Million-View Columnist, UI China Featured Designer, and founder of WeChat public account "Clip Design Lab".

Luo Hui, Associate Professor of Digital Media Art at Beijing Institute of Graphic Communication, and Master's Supervisor.

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智能控制原理与应用(第4版)

Intelligent Control: Principles and Applications (Fourth Edition)



作者: 蔡自兴、余伶俐、肖晓明 Author: CAI Zixing, YU Lingli, XIAO Xiaoming ISBN: 9787302670841 Publication Date: 10/1/2024 Page Count: 416

About the Book:

This comprehensive work systematically examines intelligent control through core components including fundamental principles of intelligent control, knowledge-based approaches, data-driven methodologies, hybrid knowledge-data integration, algorithmic programming implementations, computational architectures, and practical applications. Part 1 focuses on knowledge-based intelligent control, detailing hierarchical control systems, expert control systems, fuzzy control systems, and distributed control systems. Part 2 addresses data-driven intelligent control, covering neural control systems, evolutionary control systems, immune control systems, and network control systems. Part 3 explores hybrid intelligent control integrating knowledge and data, including learning control systems, and composite intelligent control architectures. Part 4 discusses algorithm development and programming implementations for intelligent control, with practical integration of open-source deep learning frameworks. Part 5 evaluates computational capabilities, analyzing processing power requirements and architectural optimizations for intelligent control systems. This volume functions as an essential textbook for undergraduates and postgraduates in intelligent control disciplines, while providing a technical manual for research and development projects.

About Author:

Cai Zixing, Professor and Doctoral Supervisor at Central South University's School of Automation, holds multiple distinguished appointments including United Nations expert, Academician of the International Academy of Navigation and Motion Control, Member of the New York Academy of Sciences, and IEEE Life Fellow. Recognized as a 2017 Clarivate Global Highly Cited Researcher, he stands as a pioneering academic leader.

工业控制网络

Industrial Control Network Fieldbus, Industrial Ethernet, Wireless Networks, and Industrial Internet



作者: 李正军 Author: LI Zhengjun ISBN: 9787302682394 Publication Date: 3/1/2025 Page Count: 420

About the Book:

This book offers a comprehensive and systematic guide to key industrial network technologies spanning fieldbus systems, industrial Ethernet, Modbus control networks, and wireless communications. Structured in 12 chapters, it progresses from fundamental theories to real-world application scenarios, thoroughly examining core industrial control network technologies and their diverse implementations to enhance productivity, optimize costs, and enable agile operations management. Detailed technical analyses cover CAN fieldbus, PROFIBUS, LonWorks, DeviceNet, PROFINET, and EtherCAT systems, supported by practical case studies that clarify design methodologies and implementation strategies. The text also explores emerging technologies including IoT, 5G networks, and the Industrial Internet, providing forward-looking insights into next-generation developments while delivering practical reference materials for professionals, researchers, and students through accessible technical exposition.

About Author:

Li Zhengjun, Professor and Master's Advisor at Shandong University, stands as a leading expert in embedded systems, fieldbus and industrial Ethernet, automatic control, fieldbus and industrial Ethernet. His distinguished career encompasses executive leadership as Director of the Fieldbus Technical Committee under the China Electrical Industry Association's Equipment Network Division, along with serving as a principal reviewer for China's national standard GB/T Low-voltage Electrical Communication Protocol, and having published more than 50 scientific research and teaching papers.

RBF神经网络自适应控制及MATLAB仿真(第3版)

RBF Neural Network Control for Mechanical Systems: Design, Analysis and MATLAB Simulation (Third Edition)



作者: 刘金琨 Author: LIU Jinkun ISBN: 9787302682578 Publication Date: 3/1/2025 Page Count: 456

About the Book:

This comprehensive work systematically presents fundamental theories, methodologies, and applied technologies of neural network control through practical implementations in mechanical systems, organized into 16 chapters covering: Introduction, RBF Neural Network Design and Simulation, RBF Neural Network Control Based on Gradient Descent Method, Adaptive RBF Neural Network Control, RBF Neural Network Sliding Mode Control, Adaptive RBF Control Based on Overall Model Approximation, Adaptive RBF Control Based on Local Approximation, Dynamic Surface Adaptive Control Based on RBF Neural Networks, Digital RBF Neural Network Control, Discrete Neural Network Control, Adaptive RBF Observer Design and Sliding Mode Control, Backstepping Adaptive Control Based on RBF Neural Networks, Adaptive Fault-Tolerant Control Based on RBF Neural Networks, Adaptive Quantization Control Based on RBF Neural Networks, Output-Constrained Control Based on RBF Neural Networks, and State Tracking with Unknown Control Directions Based on RBF Neural Networks. All control methodologies undergo rigorous MATLAB simulation validation.

About Author:

Professor Jinkun Liu, doctoral advisor at Beijing University of Aeronautics and Astronautics's School of Automation Science and Electrical Engineering, specializes in control theory and applications. His research experience spans Zhejiang University's Industrial Control Technology Institute and Hong Kong University of Science and Technology. Having led over 10 NSFC-funded projects, he has authored 100+ academic papers and 10+ technical books including Advanced PID Control with MATLAB Simulations.

现代测控技术与系统(第2版)

Modern Measurement and Control Technology with Systems



作者: 韩九强、钟德星、张新曼、刘瑞玲、邵会凯 Author: HAN Jiuqiang, ZHONG Dexing, ZHANG Xinman, LIU Ruiling, SHAO Huikai ISBN: 9787302677710 Publication Date: 12/1/2024 Page Count: 380

About the Book:

This nine-chapter work systematically examines contemporary measurement and control frameworks: Chapter 1 outlines foundational concepts, system architectures, and emerging trends; Chapter 2 analyzes theoretical approaches for modern measurement systems; Chapter 3 surveys cutting-edge sensor technologies and their industrial applications. Subsequent chapters cover network-based measurement systems (Chapter 4), computer vision-integrated solutions (Chapter 5), with Chapters 6 and 7 focusing respectively on wireless communication and radar-powered measurement architectures. The updated edition features new content in Chapters 8-9: Chapter 8 details BeiDou satellite navigation-enabled measurement systems, while Chapter 9 investigates micro-electromechanical systems (MEMS)-based control technologies. Each technical discussion provides comprehensive explanations of core concepts, operational principles, and real-world implementations. Designed for multidisciplinary audiences, the text serves academic researchers, engineering professionals, and technology students alike.

About Author:

Han Jiuqiang, Distinguished Professor and Doctoral Advisor at Xi'an Jiaotong University, specializes in intelligent measurement and control theories, embedded intelligent instrumentation, image processing and pattern recognition, machine vision, and machine learning. With a career spanning decades, he has directed 80+ government-funded R&D initiatives and industry partnerships, commercializing over 60 intelligent measurement devices and securing 35 patented innovations in control system design.

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运动控制理论及应用

Theory and Application of Motion Control



作者: 刘金琨 Author: LIU Jinkun ISBN: 9787302677826 Publication Date: 12/1/2024 Page Count: 236

About the Book:

This book systematically presents fundamental theories, methodologies, and application technologies of motion control through MATLAB simulations, using the "motor-load" configuration as a representative case study. It explores key motion control technologies and their theoretical/applicational developments, covering input-constrained control methodologies, quantization-based networked control, sensor/actuator fault-tolerant control, control direction-unknown compensation, LMI-based disturbance observer control with input constraints, disturbance-observer-driven systems, and coordinated control of multi-intelligent body systems under directed graphs and switching topologies. Serving as a graduate-level textbook for industrial automation, automatic control, mechatronics, automation instrumentation, and computer application disciplines, this resource also provides technical reference material for engineers specializing in production process automation, computer applications, mechatronic systems, and electrical automation.

About Author:

Professor Jinkun Liu, doctoral advisor at Beijing University of Aeronautics and Astronautics's School of Automation Science and Electrical Engineering, specializes in control theory and applications. His research experience spans Zhejiang University's Industrial Control Technology Institute and Hong Kong University of Science and Technology. Having led over 10 NSFC-funded projects, he has authored 100+ academic papers He has published more than 10 books including Robot Control System Design and MATLAB Simulation.

模式识别--原理、应用及实现

Pattern Recognition: Principles, Applications, and Implementation



作者: 郭志强、阮军、王昱 Author: GUO Zhigiang, RUAN Jun, WANG Yu ISBN: 9787302682325 Publication Date: 3/1/2025 Page Count: 220

About the Book:

This book provides a comprehensive integration of pattern recognition theory and practical learning, targeted at practitioners with foundational mathematical and scientific knowledge. It systematically covers fundamental concepts, Bayesian decision theory, parameter estimation for probability density functions, nonparametric discriminant classification methods, cluster analysis, feature extraction and selection, fuzzy pattern recognition, neural networks, and deep learning. The final section focuses on project implementation, detailing three applied engineering case studies: Chinese text recognition, face recognition, and image recognition. Each chapter begins with problem context, thoroughly explains core principles and methodologies, and demonstrates practical implementation through Python programming. Suitable as a textbook for undergraduate and graduate students in information and communication engineering, control science and engineering, and computer science and technology at higher education institutions, it also serves as a technical reference for engineers and researchers specializing in artificial intelligence development.

About Author:

Guo Zhiqiang, Professor at the School of Information Engineering, Wuhan University of Technology, and Director of a nationally recognized first-class undergraduate program, focuses on intelligent signal processing, image processing and pattern recognition, and data mining with machine learning. He has authored or co-authored eight academic textbooks.

数据工程应用微服务开发实践

Microservice Development Practices for Data Engineering Applications



作者:马武彬、王锐、吴亚辉、周浩浩、邓苏、戴超凡 Author: MA Wubin, WANG Rui, WU Yahui, ZHOU Haohao, DENG Su, DAI Chaofan ISBN: 9787302668268 Publication Date: 8/1/2024 Page Count: 200

About the Book:

This book offers a practical guide to developing data engineering applications using microservices architectures. It systematically explores core concepts of microservices and data engineering principles, environment configuration strategies, service performance monitoring techniques, inter-service communication mechanisms, and implementation approaches for domestically developed, independently controllable databases. Key features include: (1) modernizing traditional data engineering workflows through cutting-edge microservices integration; (2) step-by-step implementation frameworks for deploying and operating localized databases within microservices ecosystems, aligned with national technological sovereignty requirements; (3) actionable insights drawn from real-world case studies in data engineering. The content serves as essential reading for undergraduates in management science engineering, along with developers and system architects specializing in data engineering solutions.

About Author:

Ma Wubin is an Associate Researcher at the School of Systems Engineering, National University of Defense Technology, specializing in data infrastructure development, analytical system design, cyber-physical integration, and microservices solutions. His leadership roles include membership in the PLA's ZZ Data Engineering Chief Architect Committee and Deputy Chief Architect position for the War X Engineering Data Applications Division. He previously conducted advanced research as a visiting scholar at Loughborough University's Institute of Digital Technologies.

智能计算模型与理论

Intelligent Computing Modeling and Theory



作者: 焦李成、刘若辰、慕彩红、李阳阳、尚荣华 Author: JIAO Licheng, LIU Ruochen, MU Caihong, LI Yangyang, SHANG Ronghua ISBN: 9787302676997 Publication Date: 12/1/2024 Page Count: 368

About the Book:

This textbook systematically presents intelligent computing through ten comprehensive modules: Introduction to Intelligent Computing, Neural Computing, Fuzzy Computing, Evolutionary Computing, Swarm Intelligence Computing, Dense Mother Computing, Immune Computing, Quantum Computing, Multi-Objective Intelligent Computing, and Emerging Intelligent Computing Paradigms. Distinguished by its cohesive integration of foundational and cutting-edge content, the work offers: methodical explanations of intelligent computing architectures with structured progression from fundamental principles to advanced implementations; forward-looking perspectives on next-generation computational frameworks driving the field's evolution; modular pedagogical design featuring self-contained technical expositions. Primary adoption targets computer science curricula at China's 33 elite innovation-focused universities, while maintaining adaptability for broader academic deployment.

About Author:

Jiao Licheng serves as Chair of the Computer Science Department, Director of the Artificial Intelligence Research Institute, and leads the Ministry of Education's Key Laboratory for Intelligent Perception and Image Understanding at Xidian University. Holding the prestigious Huashan Scholar Distinguished Professorship, he is elected as Foreign Academician to both the European Academy of Sciences and Russian Academy of Natural Sciences, with fellowship distinction in IEEE. His scholarly impact is evidenced by eight consecutive years on Elsevier's Highly Cited Researchers list.

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趣话通信: 6G的前世、今生和未来

Whispers of Communication: The Past, **Present. and Future of 6G**



作者: 张林峰 Author: ZHANG Linfeng ISBN: 9787302661344 Publication Date: 6/1/2024 Page Count: 298

About the Book:

This book traces the journey of communication from its most primitive form--human language--to its current and future trends. The book explores the fundamental role of communication, outlining its foundational principles and providing a concise overview of the development of wireless communication. It delves into today's cutting-edge 5G technology and anticipates the emergence of 6G. Additionally, the book speculates on the trajectory of future communications and related technologies, summarizing the era beyond 6G as the 6G+ era.

About Author:

ZHANG Linfeng is currently working for a well-known Chinese manufacturer of communication equipment and has been in the communications industry for more than 20 years. After graduating from Tsinghua University with a degree in Physics, he studied in Japan and completed his postgraduate studies at Department of Physics, Tokyo Institute of Technology. He used to work for SoftBank Group Corp and was responsible for designing the world's first large-scale commercial IPTV system.

画说通信原理

Sketching Communication Principles



作者:张卫钢,汤颖凡 Author: ZHANG Weigang, TANG Yingfan ISBN: 9787302629504 Publication Date: 7/1/2024 Page Count: 200

About the Book:

This book presents the classic "Principles of Communication" curriculum-essential for university majors including electronic information engineering, communication engineering, automatic control, network engineering, Internet of Things engineering, and computer science-through four organized sections: "Fundamental Communication Concepts", "Modulation and Demodulation", "Coding and Decoding", and "Data Communication". Employing accessible language grounded in daily-life analogies and enriched with abundant schematic diagrams and illustrative cartoons, it addresses 40 key challenges typically encountered during study. The approach enables readers to comfortably grasp core communication principles including modulation/demodulation techniques, coding/decoding methods, synchronization mechanisms, and protocol frameworks. Blending educational value, entertainment appeal, theoretical rigor, technical precision, and visual artistry, this work serves both as a supplemental resource for university-level engineering curricula and as an engaging popular science reader for high school students and general audiences.

About Author:

Zhang Weigang, Director of the Institute of Intelligence and IoT Science & Technology and the Computer Technology Research Institute for Highway Transportation at Chang'an University; Senior Engineer.

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高频电子电路与宽带通信

High-Frequency Electronic Circuits and Broadband Communications



作者:许雪梅、楚君、罗衡、赵岩、肖佳珣 Author: XU Xuemei, CHU Jun, LUO Heng, ZHAO Yan, XIAO Jiaxun ISBN: 9787302676645 Publication Date: 11/1/2024 Page Count: 336

About the Book:

This book provides a systematic exposition of fundamental theories, design methodologies, and implementation techniques for high-frequency circuitry, encompassing core components including power amplifiers, oscillators, and modulation/demodulation systems. It rigorously examines spectral linear shifting phenomena, frequency conversion architectures, and their engineering applications in broadband communication infrastructures. The work further details practical design frameworks through comprehensive analysis of impedance matching strategies for L-type, π -type, and T-type networks, along with operational principles and performance optimization mechanisms for high-efficiency power amplification, while also exploring cutting-edge implementation scenarios in 5G systems, satellite communications, and radio propagation technologies. Structured as both a theoretical guide and applied reference, this volume serves undergraduate/postgraduate curricula in electronic engineering and telecommunications, while providing actionable insights for R&D professionals in wireless systems development.

About Author:

Xu Xuemei, Professor and Doctoral Advisor at Central South University, is a recognized national authority in advanced electronics. Her research portfolio includes leadership of over 10 national-level initiatives such as NSFC Key Programs and CMC Strategic Projects. With 100+ peer-reviewed publications, her research featured in Nature-indexed journals has been recognized as highly cited publications ranking within the SCI top 1%. She holds 20+ granted/applied invention patents in high-frequency systems engineering.

现代信号分析和处理(第2版)

Modern Signal Analysis and Processing



作者:张旭东 Author: ZHANG Xudong ISBN: 9787302658375 Publication Date: 5/1/2024 Page Count: 461

About the Book:

This book systematically and thoroughly introduces the fundamentals of modern digital signal analysis/processing along with extensively applied algorithms. The first four chapters establish essential foundations for researching modern digital signal processing, covering random signal models, estimation theory fundamentals, least-squares filtering, and Kalman filtering. Chapters 5 to 8 provide detailed examinations of widely implemented algorithm categories: adaptive filtering algorithms, power spectral estimation algorithms, higherorder and cyclostationary statistics, and blind signal source separation. Chapters 9 through 11 encompass time-frequency analysis, wavelet transform principles and applications, and sparse signal analysis with compressive sensing. The text thoroughly addresses recent high-impact research frontiers including EM algorithms, particle filtering, independent component analysis, subspace-based blind source separation methods, sparse representation, and compressed sensing. Foundational concepts of spatial array signal processing are strategically integrated within relevant chapters. Designed for graduate curricula in electronic information engineering, this work also serves as a reference for researchers, educators, and technical professionals employing signal/data analysis methodologies.

About Author:

Zhang Xudong, Tenured Professor and Doctoral Supervisor at Tsinghua University's Department of Electronic Engineering, specializes in signal processing and machine learning. Having led dozens of national and provincial research initiatives and industry collaborations, he has authored over 180 academic papers and eight technical books. His honors include Elsevier's Most Cited Paper Award.

Integrated Circuit Design Practice Tools, Methods, and Applications



作者:王永牛、付方发、桑胜田 Author: WANG Yongsheng, FU Fangfa. SANG Shenatian ISBN: 9787302668619 Publication Date: 8/1/2024 Page Count: 338

About the Book:

This book provides a comprehensive introduction to mainstream EDA tools globally, systematically elaborating on EDA tool flows and design technologies for both analog and digital integrated circuits. It introduces SPICE simulation fundamentals, separately elaborating IC simulation methodologies using two major SPICE simulators: HSPICE and SPECTRE. The work discusses EDA tool applications for IC layout design/verification and related layout design techniques. The text explicates ASIC design methodologies and digital IC EDA tool flows, detailing design technologies including HDL description/simulation, logic synthesis, formal verification, place-and-route, timing analysis, physical verification, and corresponding EDA tool implementations. Practical case studies systematically demonstrate EDA tool applications for analog IC examples and digital IC examples, covering simulation, analysis, and design techniques through concrete implementations.

About Author:

Wang Yongsheng, Associate Professor at Harbin Institute of Technology's School of Aerospace, has long been engaged in teaching and research on mixed-signal integrated circuits, system-on-chip (SoC), and their testability design methodologies. His achievements include developing multiple high-speed/high-precision ADC chips and mixed-signal SoCs. He has contributed to SoC/IP industry standards and national standardization initiatives, holding over 10 invention patents and publishing 50+ academic papers.

多目标贝叶斯优化——面向大模型的超参调优理论

Multi-Objective Bayesian Optimization: Theoretical Foundations for Hyperparameter Tuning in Large Models



作者:徐华、王洪燕、袁源 Author: XU Hua, WANG Hongyan, YUAN Yuan ISBN: 9787302667513 Publication Date: 7/1/2024 Page Count: 192

About the Book:

The class of evaluation-costly multi-objective optimization problems exemplified by hyperparameter tuning in large-scale deep learning models is formally defined as Expensive Multi-Objective Problems (Expensive MOPs). These computation-intensive challenges permeate diverse real-world application domains. Characterized by black-box objective functions requiring prohibitively expensive true-value evaluations, Expensive MOPs confront fundamental constraints: finite computational resources permit only limited function evaluations during Pareto frontier exploration. Multi-objective Bayesian optimization emerges as an effective solution framework, employing Gaussian process surrogate models to approximate original optimization landscapes while strategically deploying acquisition functions that balance exploitation-exploration tradeoffs for candidate solution selection. This monograph specifically investigates hyperparameter optimization in large models as a paradigm of Expensive MOPs, advancing theoretical foundations of Bayesian optimization methodologies through four systematic research dimensions: developing parallel function evaluation mechanisms for low/high-dimensional decision spaces, optimizing acquisition function efficiency, designing dimensionality curse mitigation strategies, and enhancing boundary condition handling-collectively establishing enhanced Bayesian optimization frameworks that demonstrate superior efficacy in solving both lowdimensional and high-dimensional Expensive MOPs.

About Author:

Xu Hua, Ph.D., graduated from the Department of Computer Science and Technology at Tsinghua University in 2003. He is currently a tenured associate professor and doctoral advisor in the same department at Tsinghua University.

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数据结构与智能算法

Data Structures and Intelligent Algorithms



作者:张海军、马江虹、张正 Author: ZHANG Haijun, MA Jianghong, ZHANG Zheng ISBN: 9787302684381 Publication Date: 3/1/2025 Page Count: 332

About the Book:

In the era of "Cloud, Intelligence, Big Data, IoT, and Mobile Internet" (CIBM), these dominant technological currents are catalyzing the evolution of data structures—from multidimensional imaging architectures to distributed computing frameworks, while driving specialized research on domain-specific structures tailored to emerging challenges. This text systematically addresses core data structures to establish foundational mastery while innovatively bridging fundamental constructs with AI algorithm implementations. By strengthening integration with cutting-edge AI frameworks and enhancing knowledge convergence competencies for next-generation technologies, it empowers learners to advance practical engineering capabilities within China's New Engineering education paradigm. Designed as a primary textbook, it serves junior undergraduates in computer science, software engineering, big data analytics, electronic information engineering, automation, and related ICT disciplines.

About Author:

Zhang Haijun currently serves as General Chair of the IEEE ISPCE-Asia International Conference, Conference Chair of the NCAA International Symposium, IEEE Senior Member, and Committee Member of the CCF Technical Committee on Service Computing, while holding editorial board positions at IEEE Transactions on Consumer Electronics (SCI-indexed), Neural Computing & Applications (Asia Region), Neurocomputing, and Pattern Analysis & Applications.

大数据技术伦理

Ethics of Big Data Technology



作者:张佐、裴欣 Author: ZHANG Zuo, PEI Xin ISBN: 9787302673422 Publication Date: 12/1/2024 Page Count: 200

About the Book:

This book provides a rigorous examination of ethical frameworks in the information age, with focused analysis on emerging technologies including Big Data and Artificial Intelligence. Organized into eight logically sequenced chapters, the work progresses from foundational theories of ethical intuition and philosophical principles to specialized domains like engineering ethics, societal risks in digitized environments, moral implications of Big Data deployment, data rights governance, public policy enhancement through data analytics, and frontiers of AI ethics. Designed to equip readers with systemic methodologies for addressing evolving ethical dilemmas, this text serves dual purposes: as a core textbook for AI, information science, and engineering curricula, and as an essential reference for ethicists, technologists, policymakers, and engaged citizens navigating techno-ethical landscapes.

About Author:

Zhang Zuo, Research Fellow, Institute of Systems Engineering, Department of Automation, Tsinghua University.

Pei Xin, Associate Research Fellow, Institute of Systems Engineering, Department of Automation, Tsinghua University.

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数字化管理系统高级开发与应用——钉钉低代码开发实践

Advanced Development and Application of Digital Management Systems: DingTalk Low-Code Development Practices



作者: 孙元、诸葛斌、叶周全、应欢欢 Author: SUN Yuan, ZHUGE Bin, YE Zhouguan, YING Huanhuan ISBN: 9787302674474 Publication Date: 11/1/2024 Page Count: 289

About the Book:

Enterprise-grade digital management systems powered by DingTalk's low-code platform serve as strategic enablers for organizational digital transformation. This definitive guide equips professionals with actionable methodologies to master digital governance frameworks and system development competencies through applied engineering perspectives. Part I establishes the conceptual framework of enterprise digitization, detailing DingTalk-based architectural solutions to demonstrate digital transformation's strategic imperatives. Part II delivers a granular walkthrough of low-code development lifecycle management, featuring project-driven workflows with schematic illustrations and technical annotations for each implementation phase. Part III demonstrates operational advantages through case-based implementation scenarios, validating system efficacy across real-world business ecosystems.

About Author:

Sun Yuan, Professor, Doctoral Advisor, and Associate Dean at Zhejiang Gongshang University's School of Business Administration (MBA Institute); Principal Investigator for National Social Science Fund Major Research Initiatives; Recipient of the National Distinguished Young Scholars Program (NDYSP); Recognized as 2020–2023 "China's Highly Cited Researchers" (Elsevier's List).

IT售前工程师进阶之路——从高质量解决方案编制起步

The Advancement Path for IT Pre-Sales Engineers -**Starting with High-Quality Solution Development**



作者: 肖政 Author: XIAO Zheng ISBN: 9787302674795 Publication Date: 11/1/2024 Page Count: 206

About the Book:

This book first summarizes common errors in IT project proposal development, then systematically and comprehensively elaborates framework development, stylistic approaches, and key focuses for various documentation types throughout project lifecycles -from market expansion to delivery acceptance. Covered materials include market analysis reports, marketing strategies, promotional plans, technical solutions, bidding documents, delivery protocols, and project communication manuals. Template references are appended for practical implementation. Designed specifically for training the author's team members, this practical application-oriented guide features authentic case studies mirroring real workplace challenges. Its plug-and-play practicality makes it ideal for corporate training programs and continuing professional education, offering valuable insights for aspiring IT pre-sales engineers and solution development managers.

About Author:

Xiao Zheng, Senior Engineer, has served at ZTE Corporation, ANKH High-Tech, Chuangtu Technology, and China Unicom. He is currently Director of the Solutions Department at Suke Intelligence, specializing in product planning and design, software development, market promotion, project delivery and operations.

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DingTalk Low-Code Development: A Beginner's Guide (2nd Edition)



作者:诸葛斌、叶周全、应欢欢、于欣鑫、 董黎刚、潘婷婷 Author: ZHUGE Bin, YE Zhouquan, YING Huanhuan, YU Xinxin, DONG Ligang, PAN Tingting ISBN: 9787302677673 Publication Date: 1/1/2025 Page Count: 276

About the Book:

This book serves as an introductory tutorial on the Dingtalk Yida low-code development platform for beginners, featuring detailed case analyses. Developed with support from the Ministry of Education and Alibaba Cloud's Industry-University Cooperation Collaborative Education Program, it was created by YE Zhouquan and other core staff from Dingtalk Yida, and is the designated reference for Alibaba's low-code developer certification at the primary and intermediate levels. The book is structured into 8 chapters divided into two parts. The first part, covering the first three chapters, introduces the Dingtalk Yihua low-code development platform and explains how to create applications using templates and Excel. The second part, comprising chapters 4 through 8, delves into in-depth case studies, such as the questionnaire system, student leave system, and inventory system. It also explains how to create portal pages and utilize integration and automation connectors to link Nail Yihua with other platforms.

About Author:

Zhuge Bin, Ph.D., Professor specializing in Internet applications, has authored over 20 Chinese invention patents (7 granted) as primary inventor, published 30+ SCI/EI-indexed papers, and authored 2 monographs with 1 textbook.

虚拟现实技术导论

Introduction to Virtual Reality Technology



作者:梁晓辉、王晓川、杨文军 Author: LIANG Xiaohui, WANG Xiaochuan, YANG Wenjun ISBN: 9787302669463 Publication Date: 8/1/2024 Page Count: 153

About the Book:

This book systematically explores virtual reality through hardware/software frameworks and core technologies. The hardware section details standard VR input/output devices, while the technological principles cover modeling techniques (motion editing, fluid simulation) and rendering mechanisms (scene organization, particle systems), with dedicated discussions on emerging VR frontiers. The book is divided into six chapters: Chapter 1 provides an overview of VR, Chapter 2 covers common VR hardware and software, Chapter 3 delves into VR modeling and related technologies, Chapter 4 focuses on VR rendering and related technologies, Chapter 5 explores cutting-edge directions in VR, and Chapter 6 presents a Unity development case study-a VR power simulation training system. Exercises are included at the end of each of the first five chapters. This book is suitable as a textbook for advanced undergraduate and graduate students in computer science, software engineering, and related majors at universities and colleges. It also serves as a reference for researchers and technology professionals interested in VR who have some knowledge of VR modeling and rendering development.

About Author:

Liang Xiaohui is a professor and doctoral supervisor at the School of Computer Science and Engineering, Beihang University, and a senior visiting scholar at Stony Brook University, State University of New York. He has presided over more than 20 projects, including those funded by the National Natural Science Foundation of China, and has won awards such as the First Prize of the National Science and Technology Progress Award.

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计算机控制技术——原理、方法与实现

Computer Control Technology Principles, Methods, and Implementation



作者:李正军 Author: LI Zhengiun ISBN: 9787302682370 Publication Date: 4/1/2025 Page Count: 364

About the Book:

The book comprises 11 chapters covering: composition, classification, adopted technologies, and development trends of computer control systems; microcontroller and bus technologies; distributed control systems (DCS); hardware design of computer control systems; emerging technologies and applications in computer control; conventional and complex control techniques; advanced control strategies; software design of computer control systems; industrial control network technologies; electromagnetic compatibility and anti-interference design for computer control systems; and practical computer control system design cases. This book serves as a textbook for undergraduate and postgraduate programs in automation, robotics engineering, automatic detection, mechatronics, artificial intelligence, electronics & electrical engineering, computer applications, and information engineering across higher education institutions. It also provides essential reference material for engineers and technicians engaged in computer control system design.

About Author:

Li Zhengjun, Professor and Master's Advisor at Shandong University, stands as a leading expert in embedded systems, automatic control, fieldbus and industrial Ethernet. His professional affiliations include serving as Council Member of the Fieldbus Technical Committee at the China Electrical Industry Association's DeviceNet Division, Committee Member of the National Electrical Equipment Network Communication Interface Standardization Commission, and Technical Reviewer for China's mechanical industry standard GB/T Low-voltage Electrical Communication Protocol.

奇思妙想:C++青少年趣味编程100例(视频教学版)

Creative Coding for Teens: 100 C++ Projects with Video Tutorials (Video Teaching Edition)



作者: 徐苑琳 Author: XU Yuanlin ISBN: 9787302676683 Publication Date: 12/1/2024 Page Count: 280

About the Book:

This book explains the development process of over 100 interesting examples using the C++ language. These examples introduce readers step by step to the usage of various C++ syntax and demonstrate the basic thinking and methods of programming. Spanning 13 chapters with 100 projects: Chapter 1 guides readers to understand the C++ development environment and write their first program. Chapter 2 covers the basics of C++ such as input, output, variables, and identifiers. Chapters 3-4 explain the representation and computational methods of data. Chapter 5 details program control structures such as conditionals and loops. Chapter 6 explores the storage and processing methods of complex data such as arrays and strings. Chapters 7-8 demonstrate the use of functions to help readers understand the concept of code reuse. Chapters 9-10 delve into the use of special data such as pointers, references, structs, unions, and enumerations. Chapters 11 and 12 teach object-oriented programming concepts such as classes, objects, inheritance, and derivation. Chapter 13 concludes with external data storage via file operations.

About Author:

Xu Yuanlin, Professor, Council Member of the Chinese Administrative Society, proficient in programming languages including C++, Python, PHP, and SQL, long engaged in technological foresight research for innovation industry development, transformation of scientific achievements, cloud computing, and system modeling theory.

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俗说矩阵——线性代数详解(Python+MATLAB)

Your Accessible Matrix



作者: 苏临之、曹欣 Author: SU Linzhi, CAO Xin ISBN: 9787302685043 Publication Date: 4/1/2025 Page Count: 368

About the Book:

Matrices are important mathematical tools and key data processing objects in fields like artificial intelligence and machine learning. As a textbook on matrix theory, this book introduces the fundamental theories of matrices progressively, including matrix concepts and operations, linear equation systems, linear mappings and transformations, determinants, vector spaces, eigenvalues and eigenvectors, similar matrices, quadratic forms, and simple applications of these theories in machine learning. Additionally, each chapter includes corresponding Python and MATLAB programming practice code for readers requiring engineering applications. This book can serve as an undergraduate textbook for engineering majors in higher education institutions and as a reference for engineering technicians requiring matrix theory knowledge.

About Author:

Su Linzhi, faculty member at Northwest University, teaching and technical application expert in artificial intelligence and machine learning, currently focusing on fundamental mathematics teaching and applied research in AI.

Cao Xin, faculty member at Northwest University, in recent years dedicated to machine learning, medical image processing, and optical molecular imaging analysis research, currently focusing on machine learning and image processing work.

精讲面向软件公司的低代码平台——以Oinone为例

In-Depth Guide to Low-Code Platforms for Software Companies: A Case Study of Oinone



作者: 陈鹏程 Author: CHEN Pengcheng ISBN: 9787302682974 Publication Date: 4/1/2025 Page Count: 612

About the Book:

This book is a companion to the Oinone open-source project, aiming to systematically explain how to develop high-quality software systems simply and quickly based on the Oinone open-source project. The entire book has 7 main chapters divided into three parts: Part 1 (Chapters 1-2) helps you better understand our original intention in designing Oinone. Part 2 (Chapters 2-6) primarily targets developers, enabling you to quickly get started and create business systems by following the case studies step by step. Part 3 (Chapter 7) targets non-developers-through using Oinone's designers, you can easily make adaptive modifications to systems without any programming ability, and when visual designers are insufficient, you can find solutions in Oinone's low-code/no-code integration and seek developer assistance.

About Author:

Chen Pengcheng, serial entrepreneur who successively founded 500mi and Shulie Technology, current founder and CEO of Oinone; Internet technology innovator with over ten years of experience in large-scale internet system development and architectural design, former head of Cainiao Network's Architecture Group and Alibaba Senior Architect involved in Taobao and Tmall core businesses.

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Information Technology

A Wonderful Journey of a Byte: Vernacular Computer System



作者: Yangmin Author: ZHAO Yanamin ISBN: 9787302672005 Publication Date: 10/1/2024 Page Count: 320

About the Book:

This book serves as a comprehensive introduction to computer programming for beginners, explaining the underlying concepts that drive the entire computer system. The book is divided into 3 parts. The first part delves into the CPU's computing process under the von Neumann architecture, while the second part explores the concept of running multiple programs simultaneously through the lens of operating systems. The third part introduces data structures and computation theory, featuring topics such as red-black trees and lambda expressions.

About Author:

Zhao Yangmin, pen name Yangmin, currently works in the M365 department of Microsoft, responsible for the development and maintenance of network services. He graduated from Fudan University with a degree in computer science and from Carnegie Mellon University with a degree in software engineering.

高速PCB设计经验规则应用实践

High-Speed PCB Design: Practical Application of Empirical Rules



作者:田学军 Author: TIAN Xuejun ISBN: 9787302672319 Publication Date: 10/1/2024 Page Count: 196

About the Book:

Printed circuit boards are vital components in consumer electronics and industrial automation control equipment. With the accelerating miniaturization, high-density integration, and high-speed evolution of electronic systems, high-speed PCB design has become an essential skill for electronic engineers. This book introduces empirical rules in high-speed PCB design from practical perspectives, emphasizing correct application in real-world scenarios to avoid errors. The book consists of 6 chapters: Chapters 1-2 explain what constitutes empirical rules in high-speed PCB design, their advantages over theoretical knowledge, and practical implementation methods. Chapter 3 details technical essentials and empirical rules for each design phase. Chapter 4 presents commonly used empirical formulas. Chapter 5 analyzes application of empirical rules in special circuit designs. Chapter 6 demonstrates specific empirical rule applications through a design case study.

About Author:

Tian Xuejun, with over three decades of experience in research & development and production of consumer electronics, industrial automation equipment, and optoelectronic testing instruments, has served as R&D engineer, project manager, and chief engineer in foreign-funded enterprises, state-owned enterprises, and private companies. He possesses substantial technical expertise and practical experience in the development, manufacturing, and quality control of electronic and optoelectronic products.

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虚幻引擎实践篇:虚拟制片

Unreal Engine



作者: 宋雷雨 Author: SONG Leiyu ISBN: 9787302662457 Publication Date: 7/1/2024 Page Count: 273

About the Book:

This book thoroughly organizes and explains the entire production process, serving as a comprehensive reference guide detailing the complete virtual production workflow. Virtual production front-loads post-production processes while covering the entire workflow from pre-production planning to final film delivery. The book provides a holistic overview of virtual production, encompassing genre-specific characteristics, historical development, and practical implementation across the entire production chain. By integrating the most advanced virtual production workflows, it elaborates on the entire implementation process through five core systems: real-time graphics rendering engines, LED display systems, camera tracking systems, virtual-physical scene alignment systems, and lighting systems. This systematic approach offers foundational guidance for virtual filming techniques, XR shooting practices, and virtual studio system operations. Furthermore, the book explores integrated applications of digital humans in virtual production, establishes standards for digital asset management and synchronization, and envisions future application scenarios for the technology.

About Author:

Song Leiyu, Associate Professor at Animation & Digital Arts School, Communication University of China; Member of National Higher Education Computer Foundation Research Council, is engaged in research in digital humans, virtual idols, virtual production, and virtual reality.

PPT遇上GPT: AI时代快速智能演示

When PPT Meets GPT: Rapid Intelligent **Presentations in the AI Era**



作者:林屹 Author: LIN Yi ISBN: 9787302667988 Publication Date: 9/1/2024 Page Count: 184

About the Book:

This book provides a detailed guide on leveraging AI technologies to enhance the quality and efficiency of PowerPoint presentations. It covers large language models, cognitive enhancement, structured thinking, text refinement, layout optimization, template utilization, visual beautification, detail refinement, and real-world case studies. Chapter 1 introduces AI applications in PPT creation, including AI-powered tools for rapid PPT generation and artistic typography, along with recommendations for efficient AI-assisted utilities. Chapters 2–6 focus on crafting professional presentations through structured thinking, content distillation, aesthetic layout design, and template engineering, with each chapter offering practical techniques and conceptual checklists. Chapters 7-9 demonstrate scenariospecific PPT applications via hands-on cases-from promotion reports to product showcasesteaching readers to prepare impactful presentations swiftly. Chapter 10 delivers an extensive collection of text-to-image prompts to empower PPT creation.

About Author:

Lin Yi, founder of Dashu Enterprise Training Institute, Microsoft Office Certified Trainer, possesses over a decade of corporate and academic training experience, guest lecturer at Wuhan University, Sun Yat-sen University, Sichuan University, and Southwest Jiaotong University. He serves globally renowned enterprises including Bank of China, PetroChina, Volkswagen Germany, Pfizer Inc. (USA), and others.

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数据分析实践:专业知识和职场技巧

Data Analysis in Practice: Domain Expertise and Workplace Skills



作者:姜文哲 Author: JIANG Wenzhe ISBN: 9787302666554 Publication Date: 7/1/2024 Page Count: 344

About the Book:

This book adopts a beginner-friendly perspective to unpack the knowledge and skills required to ascend to advanced data analyst roles. It comprehensively addresses three dimensions: an introduction to data analysis careers (including current industry status and future trends), method-driven strategies and real-world case studies for each workflow stage, and practical guidance for resolving workplace dilemmas and acing interviews. By engaging with this text and expanding upon its foundational knowledge, readers will develop a systematic, battle-tested methodology for data analysis.

About Author:

Jiang Wenzhe, former data scientist at Tencent and Alibaba with over a decade of hands-on analytics experience; creator of the influential public WeChat channel "Xiaohuolong Talks About Data" dedicated to data analysis, where he has published over a hundred original technical articles, amassed tens of thousands of followers, and achieved over 3 million cumulative reads across platforms.

交通时空大数据详解:车辆轨迹数据分析、挖掘与可视化(Python版)

Spatiotemporal Big Data in Transportation: Analysis, Mining, and Visualization of Vehicle **Trajectory Data (Python Edition)**



作者: 余庆、袁见、宋轩 Author: YU Qing, YUAN Jian, SONG Xuan ISBN: 9787302668145 Publication Date: 7/1/2024 Page Count: 264

About the Book:

This book provides a comprehensive introduction to the processing, analysis, and visualization of vehicle trajectory data, with an in-depth exploration of Python-based techniques for handling such data. Designed to empower readers to rapidly master fundamental methods and programming skills for spatiotemporal vehicle trajectory data processing, it delivers abundant real-world case studies and technical solutions. Covering the complete technical workflow from data acquisition to advanced analytics, this work stands as the definitive guide to vehicle trajectory data processing and analysis in the field of transportation spatiotemporal big data. The content systematically progresses from explaining the basic characteristics and acquisition principles of vehicle trajectory data to preprocessing, quality assessment, and visualization techniques, then advances to sophisticated applications including road network matching, emission calculations, multiagent simulations, and specialized case analyses such as electric vehicle charging demand identification and drone aerial trajectory data analytics. This book is essential for students in computer-related disciplines, data analysts, researchers, and technical developers.

About Author:

Yu Qing, postdoctoral researcher at the School of Urban Planning and Design, Peking University Shenzhen Graduate School, formerly assistant research fellow at Southern University of Science and Technology; author of over 40 journal and conference papers including over 20 SCI-indexed publications; developer of TransBigData, an open-source Python library for transportation spatiotemporal big data.

Yuan Jian, Ph.D. candidate at Tongji University and jointly-trained doctoral researcher at McGill University; participant in one National Key R&D Program; author of 6 journal papers and 4 conference publications; holder of 5 authorized invention patents.

Song Xuan, Professor, Ph.D. supervisor, and Dean of the College of Artificial Intelligence at Jilin University; Principal Investigator of a National Key R&D Program project.

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ChatGPT应用教程

ChatGPT Application Tutorial



作者:刘攀、陈朝焰、李亦昊 Author: LIU Pan, CHEN Chaoyan, LI Yihao ISBN: 9787302659037 Publication Date: 7/1/2024 Page Count: 218

About the Book:

This book introduces the development, principles, prompt engineering, and dozens of classic application cases of ChatGPT. Centered on hands-on instruction, the text is richly illustrated with screenshots and diagrams to help readers craft effective ChatGPT prompts for obtaining high-quality responses, develop practical products using the ChatGPT API, and cultivate systematic problem-solving methodologies for engineering challenges. Written in accessible language, it explains ChatGPT's theoretical foundations and operational techniques while emphasizing two core competencies: leveraging ChatGPT to boost learning/work efficiency and utilizing its API for secondary development. Supporting materials, including required software installations and case study source codes, are available for download. Suitable as a textbook for university-level prompt engineering courses, this work also serves as a self-study reference for ChatGPT enthusiasts.

About Author:

Liu Pan, Ph.D., Professor, and Visiting Scholar at the University of Texas at Dallas. Author of 50+ papers published in prestigious journals including *IEEE Transactions*, *Journal of Systems and Software, Information and Software Technology, Journal of Computer Science and Technology*, and *Computer Standards & Interfaces*, as well as leading international conferences. Holder of 2 granted national invention patents and 1 international patent.

计算社会学基础教程: NetLogo仿真软件

Fundamentals of Computational Sociology: Net Logo Simulation Software



作者: 吕鹏 主编, 张卓、李蒙迪、陈典涵 副主编 Author: Lu Peng (Editor), ZHANG Zhuo, LI Mengdi, CHEN Dianhan (Associate Editors) ISBN: 9787302670964 Publication Date: 8/1/2024 Page Count: 264

About the Book:

This textbook introduces foundational knowledge of ABM simulation modeling alongside hands-on Net Logo coding and software operation practices. The initial curriculum covers software basics, paradigm shifts in research methodologies, Net Logo fundamental models, cellular automata, the Game of Life model, voting models, the Ising model, forest fire and percolation models, social-class models, and advanced modeling. Through case studies of multiple models, beginners will learn Net Logo's core agent-class elements - Patches, Turtles, and Links, and construct foundational models through agent interactions. The course suits entry-level and intermediate learners in social science disciplines such as sociology, political science, economics, and communication studies.

About Author:

Lu Peng is a professor at the School of Public Administration, the School of Automation, and the School of Law at Central South University, as well as Deputy Director of the Peking University Wuhan Institute for Artificial Intelligence and President of the Asian Social Simulation Association (ASSA). His primary research focuses on human collective behavior and computational social science, with multiple publications in SCI/SSCI-indexed journals.

大语言模型开发:用开源模型开发本地系统

Developing Large Language Models: Building Local Systems with Open-Source Models



作者: 范煜 Author: FAN Yu ISBN: 9787302670513 Publication Date: 9/1/2024 Page Count: 332

About the Book:

This book guides readers through understanding the architecture, training, and inference processes of open-source large language models (LLMs), with a focus on Meta's Llama model. Starting with Python Numpy implementations of single-layer perceptrons and neural networks, it progressively explains how to build Transformer and Llama models. The book also covers incremental pre-training, supervised fine-tuning, and Reinforcement Learning from Human Feedback (RLHF). For integrating proprietary knowledge, it emphasizes supervised fine-tuning and introduces vector computation in Retrieval-Augmented Generation (RAG). Using a step-by-step approach-supported by functional diagrams, code breakdowns, execution results, and contextual explanations-the book demystifies complex models and algorithms. Using a step-by-step approach-supported by functional diagrams, code breakdowns, execution results, and contextual explanations-the book demystifies complex models and algorithms. Tailored for LLM application developers, especially those transitioning from computer vision to natural language processing, it also serves as a reference for undergraduate and graduate courses in related fields.

About Author:

Fan Yu, a Research Professor-level Senior Engineer, is the founder of Fansi Software Co., Ltd., Shanghai, and a guest lecturer for organizations like China Mobile. He regularly teaches nationwide courses on data analysis, artificial intelligence, and LLMs. He developed the Fancy Q&A LLM application platform and possesses expertise in AI, big data, software development, and industrial control systems (embedded systems and soft PLCs).

传播的跃迁:人工智能如何革新人类的交流

The Leap of Communication: How AI Revolutionizes Human Interaction



作者: 牟怡 Author: MOU Yi ISBN: 9787302671503 Publication Date: 9/1/2024 Page Count: 268

About the Book:

This groundbreaking work bridges AI technology, empirical social science research, and humanistic inquiry, addressing existing questions while raising new ones to deepen the discourse on AI's transformative role in human communication. Designed for scholars and students of journalism and communication, it also appeals to readers interested in intelligent media, AI, and technological evolution.

About Author:

Mou Yi, a Professor and Doctoral Supervisor at Shanghai Jiao Tong University's School of Media and Communication, serves as Co-Director of the the Center for Future Media & Human-Machine Communication. As China's Highly Cited Researchers" (Elsevier's List, 2021 - 2023), she is also a council member of the Health Communication Committee of the Chinese Association for History of Journalism and Communication. Her research focuses on human-machine communication and science communication.

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智能产品设计

Intelligent Product Design



作者:李永华、苑世宁、田云龙、孙凯 Author: LI Yonghua, YUAN Shining, TIAN Yunlong, SUN Kai ISBN: 9787302663584 Publication Date: 7/1/2024 Page Count: 320

About the Book:

This book systematically presents the core concepts, software architectures, hardware configurations, platform integrations, and control development methodologies of intelligent product design, supplemented with comprehensive project case studies. Organized into 13 chapters covering fundamentals of intelligent product design, software development platforms, hardware implementation frameworks, cloud-based ecosystems, front-end engineering approaches, and three fully realized product prototypes. The text systematically examines each development methodology and technical implementation within intelligent product development cycles. Through multidisciplinary perspectives spanning design theory and practical realization, it thoroughly explores circuitry architectures, programming paradigms, sensor networks, and functional components while deconstructing operational principles, application scenarios, circuit topologies, and code implementations. To optimize learning efficiency and accelerate technical mastery, professionally drafted hardware schematics and executable code samples accompany each project—enabling readers to both replicate documented solutions and engineer derivative innovations.

About Author:

Li Yonghua, Professor at the School of Information and Communication, Beijing University of Posts and Telecommunications, brings over a decade of embedded systems expertise with specialized focus on IoT ecosystems, cloud computing infrastructures, and big data analytics. Having led or contributed to 30+ national research initiatives and corporate engineering programs, he has disseminated technical insights through 60+ peer-reviewed publications, secured 40+ industrial patents, and authored 30+ academic compendiums.

5G车联网(V2X)与终端直通

5G Vehicle Networking (V2X) and Device-to-**Device Communication**



作者: OPPO研究院 组编, 张世昌 赵振山 等 Author: OPPO Research Institute (Editorial Team), ZHANG Shichang, ZHAO Zhenshan et. al. ISBN: 9787302638643 Publication Date: 2/1/2024 Page Count: 232

About the Book:

This technical guide, authored by 5G experts and international standardization delegates from OPPO Research Institute, explores the current state and future trajectory of 5G vehicle networking and direct device-to-device communication. It delves into the technical specifications of the first-generation NR V2X (Release 16/R16) and its evolved iteration (Release 17/R17), while also addressing potential innovations under consideration for future advancements in 5G sidelink communication, such as those planned for Release 18 (R18). Beyond cataloging finalized standards, the book unpacks the standardization processes themselves. It is poised to serve as an invaluable resource for industry engineers, educators, and students seeking a rapid yet thorough grasp of NR sidelink communication systems.

About Author:

OPPO Research Institute, established in March 2018, represents OPPO's academic, standardization, and applied research capabilities. It conducts cutting-edge research across nine domains: speech and semantic technologies, computer vision, data intelligence, contextual intelligence, materials science, power technologies, standardization protocols, software architecture, and hardware architecture.

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智能视频目标检测与识别技术

Intelligent Video Object Detechion and Recoghiton



作者:王生进、谢剑斌、庞彦伟、李亚利 Author: WANG Shengjin, XIE Jianbin, PANG Yanwei, LI Yali ISBN: 9787302676317 Publication Date: 12/1/2024 Page Count: 227

About the Book:

This book systematically introduces the core principles, methods, and technologies in intelligent video detection and recognition. Intelligent video analytics, particularly detection and recognition technologies, have become pivotal applications of artificial intelligence in smart city development, safe city initiatives, and public security. These advancements not only guide the evolution of AI technologies and drive progress in information and computer science disciplines but also ensure safer and more convenient daily life for people. The book is divided into two applied sections: Detection and Recognition. The Detection Section covers video object detection, UAV-based ground target detection, face detection, pedestrian detection, vehicle detection, and anomaly detection. The Recognition Section includes face recognition, person re-identification, action recognition, scene text recognition, and license plate recognition. It systematically details relevant algorithms and implementation processes, combining theoretical explanations with visual aids and real-world applications. Rich in content, the book balances methodological principles with practical relevance, making it an essential reference for scholars, researchers, students, and engineers seeking insights into scientific principles, technical methodologies, and industrial applications in this field.

About Author:

Wang Shengjin is a tenured professor at Tsinghua University, Director of the Institute of Information Cognition and Intelligent Systems, and Head of the Media Big Data Cognitive Computing Research Center. His research focuses on computer vision, machine learning, person re-identification, multimodal robotic brain computing, and collaborative robotics.

大模型智能推荐系统:技术解析与开发实践

Large Model-Driven Intelligent Recommendation Systems: Technical Analysis and Development Practices



作者:梁志远、韩晓晨 Author: LIANG Zhiyuan, HAN Xiaochen ISBN: 9787302685654 Publication Date: 4/1/2025 Page Count: 400

About the Book:

This book systematically explores the innovative integration of large language models with recommendation systems, covering technical principles, development methodologies, and practical case studies. Organized into four parts spanning 12 chapters, it addresses multiple critical components of recommendation systems, including technical frameworks, data processing, feature engineering, embedding generation, ranking optimization, and recommendation evaluation. The book focuses on core technologies of large language models in tackling challenges such as cold-start problems, long-tail content optimization, and personalized recommendations. Through in-depth analyses of in-context learning, Prompt engineering, and distributed deployment, it demonstrates how to leverage large language models to enhance recommendation accuracy and user experience. Practical project walks readers through the end-to-end process of developing and deploying highefficiency intelligent recommendation systems. Additionally, the book references cuttingedge tools such as Hugging Face's Transformers library, ONNX optimization tools, and distributed inference frameworks, making it an essential resource for developers and researchers seeking to apply recommendation technologies in business scenarios.

About Author:

Liang Zhiyuan, Ph.D., graduated from Beihang University, specializes in deep learning, data analytics, and intelligent decision-making. He has led multiple research projects spanning model training optimization, knowledge distillation, automated reasoning, and multi-modal learning.

Han Xiaochen, Ph.D., has long focused on high-performance computing and computing power optimization for large model training. Over the past decade, he has specialized in intelligent computing architecture optimization, large-scale data processing, and innovations in control algorithms and machine vision.

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DeepSeek实用操作手册(微课视频版)

DeepSeek Practical Operation Manual (Micro-lecture Video Edition)



作者:李艮基 Author: LI Genji ISBN: 9787302688136 Publication Date: 4/1/2025 Page Count: 280

About the Book:

This book delves into ten high-frequency scenarios through over 100 real-life cases, such as transforming office meeting minutes into action plans instantly, generating poetry/scripts intelligently in creative fields, organizing literature framework for academic research, conducting professional data analysis in finance and healthcare, recommending intelligent outfits for lifestyle services, and building short-video matrices for brand operations. It comprehensively utilizes AI to revolutionize traditional work modes, helping you stay ahead in AI collaboration and master future competitiveness. It is suitable for office newcomers eager to quickly grasp AI tools, educators seeking teaching innovation, academic researchers aiming to enhance research efficiency, content creators aspiring to break through creative bottlenecks, and enterprise managers focusing on intelligent transformation.

About Author:

Li Genji is an AI technology entrepreneur, bestselling AI book author, and a selfmedia blogger specializing in AI and new tools. He is currently the founder and CEO of TAOWHALE. In 2023, he was selected for the "Forbes China 30 Under 30" list and is the principal of the "GenJi Really Wants to Teach You" account across platforms, with over 10 million followers.

DeepSeek移动端AI应用开发:基于Android与iOS

DeepSeek Mobile AI Application Development: Android & iOS Integration



作者: 温智凯 Author: WEN Zhikai ISBN: 9787302686934 Publication Date: 4/1/2025 Page Count: 368

About the Book:

This book provides an in-depth exploration of the architectural principles, API integration, and development practices of the DeepSeek platform, empowering readers to efficiently integrate DeepSeek APIs into Android and iOS applications and build intelligent solutions tailored to user needs. Organized into 10 chapters, the book begins with foundational concepts: Chapters 1-3 introduce core ideas of large language models, DeepSeek's architecture, and API interface specifications. Chapters 4-5 delve into Android development and DeepSeek API integration, covering network communication, asynchronous task handling, and other critical techniques. Chapters 6-7 focus on iOS development and DeepSeek API implementation, addressing data request processing, caching optimization, and practical applications like intelligent customer service systems. Chapters 8-9 target enterprise developers, detailing middleware development and third-party service integration, including message queues, API gateways, distributed caching, authentication systems, and payment gateway interoperability. Chapter 10 offers hands-on guidance for building plugins such as AI-powered financial data analysis tools and gaming strategy assistants using DeepSeek, with step-by-step coverage of requirements analysis, development, testing, deployment, and operational management techniques like CI/CD and version control. Designed for developers, engineers, and architects with programming experience, this book is particularly valuable for professionals focused on large language model applications and API-driven development.

About Author:

Wen Zhikai, Ph.D., is a development engineer specializing in artificial intelligence and machine learning, with extensive expertise in intelligent algorithms and deep learning model research. Currently leading AI large language model R&D and deployment at a leading tech company, he has long been dedicated to innovative applications of reinforcement learning and deep learning.

AI Agent开发与应用

AI Agent Development & Applications: Building Intelligent Agents with Large Language Models



Vietnamese Rights Sold

作者:凌峰 Author: LING Feng ISBN: 9787302685975 Publication Date: 4/1/2025 Page Count: 288

About the Book:

This book comprehensively elaborates the fundamental theories, development tools, and multi-tiered development methodologies for intelligent agents. By integrating natural language understanding, multi-turn dialogue systems, and task automation technologies, it offers readers a holistic roadmap from theory to practice, empowering them to build high-performance AI agents. Part 1 delves into the operational principles of intelligent agents and the essential toolchains for development, covering definitions, agent types, their relationship with large language models, framework architecture design, and core module implementation. It also explores how technologies like LangChain and LlamaIndex enhance task automation and data management. Part 2 focuses on basic agent development, demonstrating the application of theoretical knowledge through real-world examples such as ticket booking systems and smart translation agents. Part 3 advances into sophisticated development techniques, showcasing agents'capabilities in practical scenarios like email processing, interview assistants, and personalized recommendation engines. Tailored for AI agent developers, AI practitioners, and technology enthusiasts, this book also serves as an ideal textbook or reference material for training institutions and university courses in related fields.

About Author:

Ling Feng, Ph.D., currently affiliated with a top-tier Chinese university (985 project), has long been engaged in research and education across machine learning, artificial intelligence, computer vision, and large language models. With deep expertise in model optimization, training acceleration, and data-driven algorithm development, he has led and contributed to multiple research projects in these domains.



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现代光量子存储

Advanced Quantum Photonics Memory



作者:徐端颐 Author: XU Duanyi ISBN: 9787302673927 Publication Date: 10/1/2024 Page Count: 867

About the Book:

It has proven track records of innovative product development from concept to high volume production with specialization in state-of-the-art coherent silicon photonics integrated circuit (Si-PIC) chip optical engine from design, fabrication, processes, integration to verification, digital and analog high speed (>100Gbps) long reach coherent optical transceivers, DSP, SFP+/XFP/QSFP28/QSFP-DD optical transceivers, DFB/FP/VCSEL lasers, APD/PD receivers, passive optical devices including thin film filter, fiber Bragg grating (FBG), DWDM and OADM devices, EDFA, MEMS, LCoS, ROADM, WSS, MCS, precision photonics IC chip engineering, hardware and firmware designs, optical line cards, and DWDM optical system engineering.

About Author:

Xu Duanyi, Professor at Tsinghua University, has served as Director of the Institute of Microfabrication Engineering, Director of the National Engineering Research Center for Optical Storage, Adjunct Professor at the University of Pennsylvania and other U.S. institutions, and Senior Member of the International Society for Optics and Photonics (SPIE). His scholarly contributions include two English-language monographs, over 400 peer-reviewed publications in Chinese and international journals, as well as 60+ Chinese invention patents and two U.S. patents in related technical fields.

工业互联网导论

Industrial Internet: An Introduction



作者: 任磊、张霖、赖李媛君 Author: REN Lei, ZHANG Lin, LAI Liyuanjun ISBN: 9787302670162 Publication Date: 10/1/2024 Page Count: 303

About the Book:

This book provides a systematic overview of the historical development of the Industrial Internet, a new generation of information and communication technologies driving the new industrial revolution. It explains the concept and architecture of the Industrial Internet, as well as its three key technological systems: network, platform, and security. Furthermore, it covers the essential knowledge system for human-machine-object communion in the Industrial Internet.

About Author:

Ren Lei, Ph.D., Professor and Doctoral Advisor at Beihang University's School of Automation Science and Electrical Engineering, is the inaugural recipient of the National Science Fund for Distinguished Young Scholars in the field of Industrial Internet. His scholarly output includes 100+ publications in premier IEEE journals such as *Transactions on Industrial Informatics* (TII), *Transactions on Cybernetics* (TCYB), and *Transactions on Neural Networks and Learning Systems* (TNNLS), with over 20 ESI highly cited papers demonstrating impact factors exceeding 10.

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电子电路基础(英文版)

Fundamentals of Electronic Circuits



作者: 樊华、陈伟建 Author: FAN Hua, CHEN Weijian ISBN: 9787302680994 Publication Date: 2/1/2025 Page Count: 384

About the Book:

Part I introduces circuit modeling and fundamental laws, including Kirchhoff's laws, superposition theorem, Thévenin's theorem, and Norton's theorem. Part II delves into analog circuits, with time-domain and frequency-domain analyses of basic amplifier circuits forming the core of Fundamentals of Analog Circuits. Part III demonstrates practical applications of integrated operational amplifiers. Through operational amplifiers and feedback mechanisms, logarithmic/exponential arithmetic circuits, multiplier/divider circuits, and low-pass/high-pass/band-pass/band-stop filter circuits can be implemented. This textbook serves as an English-language resource for electronics information engineering, automation, electrical engineering, and related disciplines. It also provides technical reference for engineering professionals.

About Author:

Fan Hua, Professor and Doctoral Supervisor at the University of Electronic Science and Technology of China. Her research contributions include 2 SCI-indexed journal articles, 10 EI-indexed conference papers, and 9 core journal publications as first author.

Chen Weijian, Professor and Senior Engineer at the University of Electronic Science and Technology of China. A recipient of the National New Product Development Award, he has authored dozens of scholarly papers published in both domestic and international academic journals.

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Advanced Lithography Process R&D Methodology and Procedures in Modern Integrated Circuit Factories



作者:李艳丽、伍强 Author: LI Yanli, WU Qiang ISBN: 9787302664185 Publication Date: 9/1/2024 Page Count: 344

About the Book:

Drawing on the authors' extensive expertise in lithography process development, this book systematically examines the subject through multiple dimensions. Beginning with foundational elements including integrated circuit fab infrastructure, semiconductor manufacturing control systems, and technical schematics, it progresses to cover: fundamental lithography principles; circuit architecture of 6-transistor SRAM devices and corresponding manufacturing processes across three critical technology nodes; historical evolution of lithography systems; eight essential steps in lithographic processing; photoresist chemistries and reticle types; standardization protocols and simulation case studies for lithography processes. Subsequent chapters detail technological advancements, industrial applications, and R&D methodologies for next-generation lithography, along with comprehensive analyses of pilot production workflows, common wafer processing challenges with practical solutions, and exemplar implementations of core lithographic techniques. This comprehensive reference serves as an essential resource for lithography researchers in academic institutions, graduate students in microelectronics, and process engineers engaged in integrated circuit manufacturing.

About Author:

Li Yanli, an early-career researcher at Fudan University's School of Microelectronics, has previously led lithography process development at SMIC's R&D Division and Shanghai IC R&D Center, authoring over 20 publications on EUV/DUV lithography technologies, with with 54 patent applications (16 granted).

Wu Qiang, a researcher at Fudan University holds a Ph.D. in Physics from Yale University. He pioneered the first quantitative modeling framework for determining equivalent photoacid diffusion length - a critical lithography process parameter, and boasts 112 granted patents (40 U.S.) alongside 83 peer-reviewed lithography research publications as of December 2023.

衍射极限附近的光刻工艺(第2版)

Photolithography Process Near the Diffraction Limit (Second Edition)



作者: 伍强、胡华勇、何伟明、岳力挽、张强、杨 东旭、黄怡、李艳丽 Author: WU Qiang, HU Huayong, HE Weiming, YUE Liwan, ZHANG Qiang, YANG Dongxu, HUANG Yi, LI Yanli ISBN: 9787302676119 Publication Date: 11/1/2024 Page Count: 696

About the Book:

Centered on lithography processes, this work systematically integrates lithography equipment, materials, imaging simulations, modeling methodologies, semiconductor manufacturing advancements, and lithographic parameter specifications into a unified framework, offering readers comprehensive technological insights. This book stands as a vital reference for researchers in lithography-related scientific institutes, faculty and students at universities and colleges, as well as engineering technicians in integrated circuit manufacturing facilities.

About Author:

Wu Qiang, a researcher and Doctoral Supervisor at Fudan University, holds a Ph.D. in Physics from Yale University. With professional experience at IBM and Shanghai Huahong NEC Electronics, He pioneered the first quantitative modeling framework for determining equivalent photo-acid diffusion length - a critical lithography process parameter, and boasts 112 granted patents (40 U.S.) alongside 83 peer-reviewed lithography research publications as of December 2023.

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Internet of Things: A Technical Introduction



作者:吴建飞、王宏义、郑黎明 Author: WU Jianfei, WANG Hongyi, **ZHENG** Limina ISBN: 9787302680970 Publication Date: 1/1/2025 Page Count: 296

About the Book:

The Overview section systematically examines IoT's historical evolution, core technologies, distinguishing characteristics, and future trajectories, establishing fundamental domain knowledge. The Sensing module analyzes identity recognition systems, geolocation technologies, sensor architectures, and emerging perception methodologies, elucidating key mechanisms for IoT information acquisition. Transmission technologies receive dedicated exploration, encompassing wireless wide-area networks, short-range communication protocols, and next-generation connectivity solutions. The Common Infrastructure division investigates critical enablers including encoding/identification standards, security/privacy frameworks, and IoT platform architectures, delivering both theoretical foundations and implementation best practices. Application-focused chapters provide rigorous analyses of smart transportation networks, intelligent manufacturing ecosystems, optimized supply chains, and defense-related implementations. Functioning as both an academic resource for IoT curricula and a practical guide for industry practitioners, this publication bridges theoretical education with applied technological development.

About Author:

Wu Jianfei, Full Senior Engineer, serves as Research Professor at the College of Electronic Science, National University of Defense Technology. His expertise spans autonomous standardization for IoT sensing technologies, large-scale integrated system applications, and research and standardization of electromagnetic compatibility & reliability in integrated circuits.

Wang Hongyi is Associate Research Professor at the College of Electronic Science, National University of Defense Technology.

Zheng Liming, serves as Associate Research Professor at the College of Electronic Science, National University of Defense Technology.

Principles of Radar and Sonar



作者: 唐劲松、吴浩然、钟何平 Author: TANG Jinsong, WU Haoran, **ZHONG Heping** ISBN: 9787302678489 Publication Date: 12/1/2024 Page Count: 432

About the Book:

This work systematically presents the fundamental theories of radar, sonar, electronic warfare (EW), and communication sonar through the unified framework of three operational pillars: detection, measurement, and resolution. Part I establishes foundational knowledge of signal processing systems and wave propagation. Part II details core methodologies for distance, angular, and velocity measurement/resolution in radar/sonar systems. Part III develops time-domain signal processing theory, encompassing radar/sonar signal detectors & estimators, ambiguity function analysis, resolution principles for range/frequency discrimination, precision assessment of range/frequency measurements, and multi-source resolution impacts on detection, measurement, and target recognition. Part IV derives radar/ sonar performance equations and discusses data acquisition, visualization, and processing techniques. Part V examines EW operational fundamentals. Part VI explores communication sonar architectures. Adopted as essential instructional content for radar engineering, hydroacoustics, electronics, and marine science undergraduates/graduates, while also functioning as a professional reference, this volume equips practitioners across academia and defense industries.

About Author:

Tang Jinsong, a Research Professor and doctoral advisor at the Naval Hydroacoustic Technology Laboratory, Naval Engineering University. He spearheaded China's development of synthetic aperture sonar (SAS) and interferometric SAS technologies. His groundbreaking contributions resolved long-standing domestic challenges in critical defense areas, including torpedo target identification and long-range underwater acoustic communications.

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Micro-machining Technology: Principles and Experimental Processes



作者:陈军、黄展云、张宇、卢星、王冰、陈晖 Author: CHEN Jun, HUANG Zhanyun, ZHANG Yu, LU Xing, WANG Bing, CHEN Hui ISBN: 9787302661214 Publication Date: 6/1/2024 Page Count: 260

About the Book:

Structured across six parts and twelve chapters, this comprehensive work systematically presents both theoretical principles and laboratory protocols for micromachining technology. Integrating theoretical foundations with practical experimentation, it addresses core fabrication processes including lithography, etching, thin-film deposition, oxidation, and doping. The theoretical sections provide in-depth explanations of underlying technological mechanisms, while the experimental modules detail four key process categories: photolithography, etching, thin-film preparation, and doping. These are supplemented with device fabrication workflows and characterization methodologies. Functioning as essential course material for undergraduates and graduates in microelectronics science, optoelectronic information engineering, electronic science/technology, and related disciplines, this text also offers a practical reference for professionals entering the field.

About Author:

Chen Jun, Professor and Doctoral Supervisor at Sun Yat-sen University, specializes in vacuum micro/nano-electronic device research, with over 250 SCI-indexed publications and a co-authored academic textbook to his credit. He has led the National Key Research and Development Program and received the Second Prize of the National Natural Science Award.

Yu Zhang, Professor and Doctoral Supervisor at Sun Yat-sen University, focuses on micro/ nano fabrication and electronic device development, dedicating extensive efforts to both academic instruction and scientific investigations in these fields.

Fundamentals of Semiconductor Devices



作者: 蒋玉龙 Author: JIANG Yulong ISBN: 9787302661207 Publication Date: 6/1/2024 Page Count: 255

About the Book:

This book examines core silicon-based integrated circuit components-PN junctions, bipolar transistors, and field-effect transistors-through systematic analysis of their fundamental architectures, critical parameters, DC behavior, frequency response, and switching performance. Prioritizing essential operating principles, it employs graphical illustrations to demystify complex physical phenomena while rigorously deriving governing equations. A dedicated section provides a detailed exploration of short-channel effects in scaled field-effect transistors alongside corresponding mitigation strategies adopted in industrial practice. Designed for undergraduates in microelectronics and related fields after completing semiconductor physics coursework, this text serves dual purposes: as a foundational resource for understanding device operation mechanisms and as a technical reference for graduate researchers. It additionally supports professionals in semiconductor manufacturing and circuit design through its applied insights.

About Author:

Jiang Yulong, Professor and Doctoral Supervisor at Fudan University's School of Microelectronics, conducts pioneering research in advanced IC processes and devices, power electronics, CMOS image sensors, and flexible electronics. As corresponding author, he has published 34 papers in IEEE EDL, TED, and IEDM.

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Learning Programming with Robots: Level One – Large-Particle Electronic Building Blocks



作者: 盛通教育研究院 Author: Shengtong Education Research Institute ISBN: 9787302632610 Publication Date: 12/1/2024 Page Count: 256

About the Book:

Learning Programming with Robots is a four-volume series, and this book is the first installment. Large-particle electronic building blocks represent a form of tangible programming-a unique approach characterized by direct manipulation, simplified coding, and interactive engagement. In educational settings, they introduce foundational programming concepts while fostering multidisciplinary integration, cultivating diverse skills in learners. By replacing traditional keyboard-based coding with physical interactions and streamlined programming languages, these building blocks allow children to express programming logic through intuitive card-swiping and touch-reading methods, with immediate feedback on executed commands. Leveraging preschoolers' everyday experiences, the system enables rapid mastery of programming principles, offering younger children expansive room for exploration. Additionally, the application of large-particle electronic building blocks enriches early learning across multiple subjects, promoting interdisciplinary connections and empowering learners to engage in exploratory, hands-on educational activities.

About Author:

Shengtong Education Research Institute, established in September 2020, is a technologydriven educational innovation platform jointly founded by Beijing Shengtong Zhixing Education Technology Group Co., Ltd. and Beijing Normal University's Science and Technology Education Research Institute.

电子传奇:从固体到凝聚态

Electronic Legend From Solid to Condensed Matter



作者: 张天蓉 Author: ZHANG Tianrong ISBN: 9787302577676 Publication Date: 12/1/2024 Page Count: 200

About the Book:

This book delves into the physical theories underpinning electronic technologies, beginning with the history of semiconductors and electricity. It traces pivotal milestones like the invention of the transistor, revisits the evolution of atomic models, and spotlights cuttingedge research in spintronics, nanotechnology, the quantum Hall effect, and topological insulators. Through detailed explorations of core concepts-including quantum principles, band structures, and lattice dynamics-the work translates abstract physics into tangible narratives. It vividly recounts the groundbreaking research and captivating anecdotes of scientific luminaries such as Michael Faraday, Nikola Tesla, Heinrich Hertz, Lev Landau, William Shockley, and Edwin Hall, guiding readers to appreciate their genius and unravel the mesmerizing "dance" of electrons within semiconductors. By bridging physics and engineering, the book unveils the profound interplay between theory and application, offering both specialists and enthusiasts a captivating gateway into the wonders of electronic technology.

About Author:

Zhang Tianrong, a theoretical physics Ph.D. graduate from the University of Texas at Austin, specializes in black hole radiation, Feynman path integrals, femtosecond lasers, and EDA integrated circuit software for high-frequency and microwave communications. With over thirty peer-reviewed papers to her name, she is the acclaimed author of the Mysteries of the Universe, a popular science book shortlisted for the 2016 China Good Book Award and honored as a 2017 National Outstanding Popular Science Work by China's Ministry of Science and Technology.

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深空测控GNSS应用技术

GNSS Application Technology for Deep Space Navigation



作者: 樊敏、李海涛、黄勇 Author: FAN Min, LI Haitao, HUANG Yong ISBN: 9787302686972 Publication Date: 3/1/2025 Page Count: 196

About the Book:

The GNSS Application Technology for Deep Space Navigation embarks on a journey into the application of GNSS for deep space navigation, meticulously exploring the intricacies of time and coordinate systems for lunar probe navigation, dynamics and measurement models, the distinctive features of GNSS signals in the Earth-Moon expanse, precision orbit determination, and autonomous navigation algorithms tailored for lunar probes based on GNSS. It also delves into practical engineering applications, making this book a quintessential reference for engineers and technicians involved in deep space navigation and control, as well as for researchers specializing in the precision orbit determination of deep space probes.

About Author:

Fan Min is primarily engaged in the overall technology of lunar and deep space navigation and control, along with spacecraft precision orbit determination and its application research. Li Haitao is at the forefront of the top-level design and technical research of deep space measurement and control systems, as one of the principal architects of China's deep space navigation and control framework.

Huang Yong specializes in space vehicle precision orbit determination and its application research. He has participated in major national special projects such as China's lunar exploration, BeiDou satellite navigation, and independent Mars exploration.

物联网通信与智能感知——理论与实践

Internet of Things Communication and Intelligent Sensing: Theory and Practice



作者: 王继良、童率 Author: WANG Jiliang, TONG Shuai ISBN: 9787302683834 Publication Date: 3/1/2025 Page Count: 256

About the Book:

Beginning with fundamental IoT concepts, this book centers on communication and sensing technologies within the IoT ecosystem. It provides a comprehensive overview of IoT architecture, technical principles, application domains, and developmental trends, spanning critical layers including perception, network, and application layers. This multitiered approach constructs a holistic knowledge framework for readers. Through extensive real-world case studies, the text demonstrates practical implementations and transformative potential of IoT technologies across diverse life scenarios. Particular emphasis is placed on emerging innovations and research breakthroughs, particularly IoT integration with artificial intelligence, cloud computing, and other converging technologies, delivering cutting-edge technical insights. Serving as an instructional resource for for senior undergraduate students majoring in IoT communication and sensing, this work also offers valuable reference material for beginners interested in wireless communication and IoT, or for engineering technicians engaged in related technology research and development.

About Author:

Wang Jiliang is a long-term appointed associate professor at the School of Software, Tsinghua University, with main research directions in IoT and perceptual intelligence. He has received the IEEE TPDS Highlight Paper award, IEEE/ACM IWQoS 2021 Best Paper Award runner-up, etc.

Tong Shuai is a postdoctoral researcher at Tsinghua University, with research directions focusing on low-power IoT, wireless communication, and sensing.

多元统计分析

Multivariate Statistical Analysis



作者:张建同 Author: ZHANG Jiantong ISBN: 9787302679691 Publication Date: 3/1/2025 Page Count: 276

About the Book:

Multivariate statistical analysis has demonstrated extensive application value across multiple domains. This book systematically introduces core components of multivariate statistical analysis, encompassing random vectors, multivariate normal distributions, statistical inference, multiple linear regression, principal component analysis, factor analysis, cluster analysis, discriminant analysis, classification neural networks, path analysis, and structural equation modeling. All primary multivariate statistical methods explored in this text employ the widely-used statistical software packages SPSS and JMP as computational and analytical tools. Designed to serve both as a comprehensive textbook for senior undergraduates and graduate students in engineering disciplines and economics/management programs, it also functions as an essential reference material for professionals engaged in various economic and managerial practices.

About Author:

Zhang Jiantong, Ph.D. in Statistics, Professor and Ph.D. Supervisor at the School of Economics and Management, Tongji University. His primary research focuses include big data analytics and applied statistics, data-driven vehicle scheduling, medical big data-based decision modeling, and healthcare management.

宇宙学概论

Parallel Worlds



作者: 王爽、王一、黄志琦、朱维善、汤柏添、罗峰 Author: WANG Shuang, WANG Yi, HUANG Zhiqi, ZHU Weishan, TANG Botian, LUO Feng ISBN: 9787302670759 Publication Date: 9/1/2024 Page Count: 305

About the Book:

This book introduces modern cosmology through the lens of a cosmic timeline, starting from the moment of the universe's creation and journeying downstream through the river of time all the way to the present day. Along this voyage, it explores seven classic and foundational cosmological topics, such as inflation, the Big Bang, cosmic microwave background radiation, large-scale cosmic structures, the stellar realm, dark matter, and dark energy. The first section of each chapter is a popular science article dedicated to the respective field, aiming to help complete beginners with no mathematical or scientific background grasp the core questions and historical developments of the subject. Subsequent sections gradually delve deeper, introducing core mathematical formulas and physical imagery to enable readers with undergraduate-level knowledge in physics or astronomy to understand the most essential frameworks of the field. The book is tailored for university undergraduates in astronomy-related disciplines, educators, researchers, and astronomy enthusiasts.

About Author:

Wang Shuang, Associate Professor and doctoral advisor at the School of Physics and Astronomy at Sun Yat-sen University, has published over 30 SCI-indexed papers with more than 2,000 citations. He is the author of the acclaimed Cosmic Odyssey series and has received numerous national awards for science communication, including the 7th China Outstanding Publications Book Award. A prominent science communicator with over 3 million followers on Sina Weibo, he is widely recognized as a leading voice in popularizing scientific knowledge.

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从掷骰子到人工智能: 趣谈概率

From Dice Rolls to Artificial Intelligence: A Playful Journey Through Probability



Korean Rights Sold

作者:张天蓉 Author: ZHANG Tianrong ISBN: 9787302664512 Publication Date: 8/1/2024 Page Count: 376

About the Book:

This book serves as an introductory guide to probability and statistics, exploring famous and intriguing probability puzzles such as the gambler's problem of points, the gambler's fallacy, the Galton board, geometric probability paradoxes, the drunkard's walk, the German tank problem, the PhD dating dilemma, and the Chinese restaurant process. Through lively discussions of these accessible and entertaining examples, readers will encounter essential concepts like random variables, expected value, Bayes' theorem, the law of large numbers, the central limit theorem, Markov processes, and deep learning. Key ideas are introduced with logical clarity, expanded upon with depth, and paired with intuitive explanations and real-world applications. Many foundational theories and principles are contextualized through vivid scenarios, inviting young readers to absorb knowledge through games and puzzles while sparking their curiosity about foundational sciences, artificial intelligence, and information technology.

About Author:

Zhang Tianrong, a theoretical physics Ph.D. graduate from the University of Texas at Austin, specializes in black hole radiation, Feynman path integrals, femtosecond lasers, and EDA integrated circuit software for high-frequency and microwave communications. With over thirty peer-reviewed papers to her name, she is the acclaimed author of the Mysteries of the Universe, a popular science book shortlisted for the 2016 China Good Book Award and honored as a 2017 National Outstanding Popular Science Work by China's Ministry of Science and Technology.

人机融合智慧涌现:AI大模型时代的综合集成研讨体系

The Convergence of Human-Machine Intelligence: The **Emergence of Wisdom in the Era of AI Large Models -A Meta-Synthetic Deliberation System**



作者:郑楠、李耀东、戴汝为 Author: ZHENG Nan, LI Yaodong, DAI Ruwei ISBN: 9787302665106 Publication Date: 7/1/2024 Page Count: 640

About the Book:

This book revisits the developmental trajectory of systems science and complexity science, reorganizes prior experiences in meta-synthetic methodology from the perspective of hybrid intelligence, and further explores the theoretical foundations of intelligence within the meta-synthetic deliberation system. It investigates the integration and evolution of systemic intelligence, the activation and application of social intelligence, and related challenges. These efforts not only address cutting-edge topics in cognitive intelligence but also pioneer new pathways for studying heterogeneous, hierarchical cognitive intelligence and systemic intelligence in open, complex environments. The work provides foundational theoretical tools for researchers exploring other forms of hybrid intelligence while advancing the effective, in-depth, and sustained development and application of China's original metasynthetic methodology.

About Author:

Zheng Nan, a researcher at the Institute of Automation, Chinese Academy of Sciences (CAS), and a protégé of Academician Dai Ruwei, focuses on complex systems, meta-synthesis, and artificial intelligence. He currently serves as the associate editor of the journal Complex Systems and Complexity Science.

Li Yaodong, former postdoctoral fellow and associate research professor at the CAS Institute of Automation and also mentored by Dai Ruwei, has long specialized in systemic complexity, meta-synthesis, and AI research.

Dai Ruwei, research professor at the CAS Institute of Automation and CAS academician, studied under Qian Xuesen. He received the National First-Class Prize for Scientific and Technological Progress in 2001 and the Simon Award for Outstanding Contributions to International Information Technology and Decision Science in 2012.

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Architectural Mechanics



作者: 苏振超、薛艳霞、陆海翔 Author: SU Zhenchao, XUE Yanxia, LU Haixiang ISBN: 9787302663942 Publication Date: 7/1/2024 Page Count: 438

About the Book:

This book consists of 16 chapters beyond the introduction: Fundamental Concepts of Statics and Force Analysis of Objects; Planar Concurrent Force Systems and Planar Couple Systems; Synthesis and Equilibrium of General Force Systems; Load-Bearing Capacity of Tension-Compression Rods; Load-Bearing Capacity of Circular Shafts; Load-Bearing Capacity of Beams; Stress States, Strength Theories, and Combined Deformations; Stability of Compression Members; Geometric Composition Analysis of Planar Bar Systems; Internal Force Calculation for Statically Determinate Structures; Displacement Calculation for Statically Determinate Structures; Displacement Calculation for Statically Determinate Structures; Method; Influence Lines; and Applications of PKPM in Architectural Mechanics. The text includes numerous illustrative examples, conceptual questions, and exercises, with solutions to selected problems provided via QR codes to manage the book's length. Designed as a textbook for undergraduate programs in engineering management, architecture, urban planning, water supply and drainage, landscape design, and related fields, it also serves as a reference for vocational college students, educators, and engineering professionals.

About Author:

Su Zhenchao, Associate Professor and Master's Supervisor at Xiamen University, has published over 20 teaching and research papers, including multiple papers in Chinese core journals and several articles in international EI-indexed journals. With nearly three decades of experience teaching university-level mechanics courses, he has authored leading textbooks such as Theoretical Mechanics and Mechanics of Materials as primary editor.

Computational River Engineering



作者: 胡德超 Author: HU Dechao ISBN: 9787302676430 Publication Date: 12/1/2024 Page Count: 423

About the Book:

Computational River Engineering is a specialized discipline employing numerical simulation methods to predict river evolution and calculate sediment-water dynamics in engineering contexts. Rooted in sediment transport research and practice, this book emphasizes recent advancements over the past two decades in computational river engineering while maintaining systematic coherence. The text encompasses experimental methodologies for 1D, 2D, and 3D sediment-water mathematical models, comprehensively covering modeling approaches, simulation techniques, key focal areas, and research workflows for diverse rivers and their engineering systems. It seeks to elucidate fluvial geomorphology and river engineering through the lens of numerical simulation, addressing questions such as the scope of research achievable with river mathematical models under modern computational theories and software/hardware frameworks, as well as their simulation effectiveness and accuracy thresholds. Designed for scholars, undergraduates, and graduate students in hydraulics, river dynamics, aquatic environments, smart water management, urban water system planning, and related fields, this book also serves as a reference for professionals in water resources and hydropower, inland navigation, environmental ecology, and allied industries.

About Author:

Hu Dechao, the architect of the Grand Spatio-Temporal River Numerical Simulation Theory and a systematic synthesizer of sediment-water numerical simulation techniques for rivers and their engineering systems, has dedicated two decades to low-level programming development for mathematical models. The 1D, 2D, and 3D models he developed have been applied to nearly a hundred river engineering projects, establishing him as a leading advocate and representative figure in China's pursuit of self-reliant innovation in river mathematical modeling.

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Non-linear Finite Element



作者: 庄茁、柳占立、王涛、高岳、高原 Author: ZHUANG Zhuo, LIU Zhanli, WANG Tao, GAO Yue, GAO Yuan ISBN: 9787302675365 Publication Date: 12/1/2024 Page Count: 512

About the Book:

This book introduces the core content of non-linear finite element, encompassing the three-field variational principle, Lagrangian formulation, implicit and explicit integration methods, treatment of material and geometric non-linearities, contact non-linearities, and various forms of element, providing a theoretical foundation for non-linear finite element analysis.

About Author:

Zhuang Zhuo is a professor and doctoral supervisor at the School of Aerospace Engineering, Tsinghua University, and Fellow of the European Academy of Sciences and Arts.

Liu Zhanli is a professor at the School of Aerospace Engineering, Tsinghua University, with research interests in plastic mechanics, fracture mechanics and impact dynamics.

Wang Tao is an associate researcher and doctoral supervisor at Beijing Institute of Technology, with research interests in computational solid mechanics, explosion impact damage and protection.

Gao Yue is Ph.D. in Solid Mechanics from Tsinghua University in 2018, with research interests in mechanical behavior of porous elastic media.

Gao Yuan is Doctor of Engineering from Tsinghua University, mainly engaged in the research on the development of non-linear finite element software and structural design of mechanical products.

空间目标光学特性原理与应用

Principles and Applications of Optical Characteristics of Space Targets



作者:李智、徐灿、霍俞蓉、方宇强 Author: LI Zhi, XU Can, HUO Yurong, FANG Yugiang ISBN: 9787302658672 Publication Date: 6/1/2024 Page Count: 250

About the Book:

This book is divided into 10 chapters. Chapters 1-2 introduce the fundamental principles and methods for generating and acquiring scattering characteristics of space targets. Chapter 3 focuses on modeling the scattering characteristics of space target surface materials, covering basic BRDF models and Phong models, as well as improved BRDF models and enhanced Phong models proposed in this research. Chapters 4-5 emphasize simulation modeling and experimental measurement methods for optical scattering cross-sectional areas of space targets. Chapter 6 details the analysis of rotational target motion states using variational mode decomposition algorithms. Chapter 7 introduces multiple deep neural network-based algorithms for space target recognition and methods for estimating the attitude orientation of triaxially stabilized targets. Chapters 8–9 explore modeling approaches for spectral scattering characteristics and material identification methods for space targets based on spectral data. Chapter 10 presents techniques for detecting space targets and estimating their positions and attitudes from visible light images using deep neural networks. This book serves as a supplementary textbook for undergraduate and graduate courses in space situational awareness at universities and colleges, and is also a valuable reference for researchers and engineers working in this field.

About Author:

Li Zhi, Professor and doctoral supervisor, currently serves as the Dean of the Command College at the Space Engineering University. With long-term dedication to teaching and research in space security, he has made breakthroughs in core technologies such as space target characteristic data mining and intelligence analysis. His accolades include a National Special Prize for Scientific and Technological Progress, 15 authorized invention patents, and over 10 published academic works.

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空间目标雷达特性原理与应用

Principles and Applications of Radar Characteristics of Space Targets



作者:李智、尹灿斌、方宇强 Author: LI Zhi, YIN Canbin, FANG Yuqiang ISBN: 9787302664932 Publication Date: 8/1/2024 Page Count: 478

About the Book:

This book centers on the measurement principles of radar characteristics of space targets and their applications in intelligent recognition. The principles section (Chapters 1-5) covers foundational topics such as radar characteristic measurement basics, inverse synthetic aperture radar (ISAR) concepts, ISAR range-Doppler imaging principles, motion compensation for ISAR imaging, and ISAR range-instantaneous-Doppler imaging principles. The artificial intelligence-based recognition section (Chapters 6-8) discusses intelligent target identification using radar cross-section (RCS) characteristic measurements, high-resolution range profiles (HRRP), and high-resolution ISAR complex imagery. Chapter 6 focuses on narrowband radar RCS data for target recognition, while Chapters 7 and 8 utilize broadband radar measurements: Chapter 7 details 1D HRRP-based recognition, and Chapter 8 explores 2D high-resolution complex image-based methods.

This book is intended for university students and faculty studying radar characteristic measurement principles, space target detection/recognition, and AI-driven space target identification, and offers significant reference value for scholars in related disciplines.

About Author:

Li Zhi, Professor and doctoral supervisor, currently serves as the Dean of the Command College at the Space Engineering University. With long-term dedication to teaching and research in space security, he has made breakthroughs in core technologies such as space target characteristic data mining and intelligence analysis. His accolades include a National Special Prize for Scientific and Technological Progress, 15 authorized invention patents, and over 10 published academic works.

镁质胶凝材料发展与应用

Development and Applications of Magnesium-Based Cementitious Materials



作者: 杨永、宋廷鲁 Author: YANG Yong, SONG Tinglu ISBN: 9787302675068 Publication Date: 10/1/2024 Page Count: 280

About the Book:

This book adopts a "four-dimensional integrated" technical philosophy, structured sequentially from theory to formulation design, followed by technological application and development. It begins by introducing the raw materials for innovative practices in magnesium-based cementitious materials (magnesium oxide, blending agents, filling materials, and modifiers) \rightarrow progresses to theoretical formulation design (including reaction mechanisms and molar ratio techniques) \rightarrow details processes and related equipment (covering mixing, foaming, molding, curing, demolding, and post-treatment processes) \rightarrow and concludes with magnesium-based cementitious products and their standards. The text incorporates the latest global technologies and product applications.

About Author:

Yang Yong, Senior Engineer and General Manager of Shandong Meijiatu Advanced Materials Technology Co., Ltd., joined the Shandong Provincial Academy of Building Research in 2004. Since 2007, he has founded Jinan Meijiatu Advanced Materials Development Co., Ltd., Jinan Meichen Building Materials Machinery Co., Ltd., and Jinan Meiyatu Machinery Equipment Co., Ltd., dedicating two decades to the industryacademia-research integration of magnesium-based cementitious materials. He has authored Magnesium Oxychloride Technology and Innovative Practices in Inorganic Cementitious Materials, published over 20 academic papers, and secured more than 40 invention and utility model patents. His current focus lies in the applied research of inorganic cementitious material technologies.

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元宇宙导论

Introduction to the Metaverse



作者: 曾焕强、陈婧、朱建清、施一帆、林琦 Author: ZENG Huanqiang, CHEN Jing, ZHU Jianqing, SHI Yifan, LIN Qi ISBN: 9787302654926 Publication Date: 2/1/2024 Page Count: 325

About the Book:

This book aims to provide university students with a comprehensive understanding of the metaverse through its underlying technologies. Targeted at undergraduates in emerging engineering disciplines, it also serves graduate students and professionals in electronics and information technology fields.

About Author:

Zeng Huanqiang, Professor and doctoral supervisor at Huaqiao University, serves as Dean of the College of Engineering. Holding a PhD from Nanyang Technological University (Singapore) and postdoctoral experience from The Chinese University of Hong Kong, he is an editorial board member of the internationally renowned journal *IEEE Transactions on Image Processing*, a committee member of the Signal Processing Branch of the Chinese Institute of Electronics, and an IEEE Senior Member. He has chaired multiple academic conferences as general chair/technical committee chair. Leading over 30 projects including China's National Key R&D Program, he has published 150+ research papers (including one ESI highly cited paper), obtained 51 authorized invention patents, with three patents successfully commercialized.

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A Grain in the Vast Sea: **OR Codes for Chinese Idioms**



作者: 陈志谦、陈乐濛 编著 Author: CHEN Zhiqian, CHEN Lemeng (Editors) ISBN: 9787302679417 Publication Date: 1/1/2025 Page Count: 300

About the Book:

The title of this book combines two elements: the former is traditional, the latter technological; the former embodies the inherent meaning of the idiom itself, while the latter may represent its technological extension or the author's speculation and imagination. By linking these two aspects, the author interprets classical idioms through a modern lens, aiming to invite readers to uncover subtle meanings and overlooked information from fresh perspectives. The book analyzes 35 idioms in total, including Jing Jing You Tiao ("Orderly Arrangement" - linked to Go and QR codes), Za Luan Wu Zhang ("Chaos" tied to the principle of entropy increase), Ke Zhou Qiu Jian ("Marking the Boat to Find the Sword" - connected to Descartes and coordinate systems), Zhao San Mu Si ("Fickle Promises" - related to the uncertainty principle in quantum mechanics), Hu Shuo Ba Dao ("Nonsensical Rambling" - associated with Copernican heliocentrism), Mian Mian Ju Dao ("Comprehensive" - mapped to regular polyhedrons), Zhuang Zhou Meng Die ("Zhuangzi's Butterfly Dream" - paired with butterflies), Qing Ting Dian Shui ("Dragonfly Skimming Water" - linked to aircraft), Jin Chan Tuo Qiao ("Cicada Shedding Its Shell" - tied to prime numbers), Ying Ying Gou Gou ("Shameless Scheming" - connected to Lévy flight patterns), Ri Yue Xing Chen ("Celestial Bodies" - aligned with the solar system), Xing Han Can Lan ("Starry Splendor" - mapped to the 28 lunar mansions and asterisms), Ri Yue He Bi ("Solar-Lunar Union" - linked to eclipses), and Xing Fen Yi Zhen ("Stellar Divisions" - associated with constellations). Each idiom is explored in approximately 10,000 words.

About Author:

Chen Zhiqian, Ph.D. in Science and Professor, has authored Trails of Masters, Discoveries of Masters, and Profiles of Masters.

Chen Lemeng, a current Master's candidate in Literature at Southwest University, contributed as the second author of Trails of Masters, a text editor for Discoveries of Masters, and the second author of Profiles of Masters.

工程机械手册— 矿山机械

CCMS Handbook of Mining Machinery



作者: 葛世荣、王忠宾、鲍久圣、徐志强 Author: GE Shirong, WANG Zhongbin, BAO Jiusheng, XU Zhigiang ISBN: 9787302675631 Publication Date: 12/1/2024 Page Count: 1338

About the Book:

Mining equipment refers to machinery directly used in mineral extraction and beneficiation. This book focuses on equipment selection, installation, and maintenance for various types of mining machinery. It is divided into four sections: Section I covers coal mining machinery; Section II addresses metal and non-metal mining machinery; Section III explores petroleum and natural gas machinery; and Section IV details mineral processing machinery, including crushing, sorting, and drying equipment. Designed as a technical guide, this book helps users comprehensively understand and properly operate mining equipment. It also supports equipment investors and distributors, while serving as a reference for professionals and students in mining engineering, process design, product development, equipment utilization, and maintenance.

About Author:

Ge Shirong, Ph.D. and Professor, currently serves as President of China University of Mining and Technology (Beijing). He holds concurrent roles as Vice Chairman of the China Coal Society, Director of the Tribology Branch of the Chinese Mechanical Engineering Society, and Foreign Member of the Russian Academy of Engineering. His research focuses on intelligent mining equipment and tribology. He has published over 240 academic papers, authored four books, and received two National Technology Invention Awards (Second Class) and the National Science and Technology Progress Award.

信息交互设计的演进研究

Research on the Evolution of Information Interaction Design



作者: 郑杨硕 Author: ZHENG Yangshuo ISBN: 9787302651260 Publication Date: 6/1/2024 Page Count: 228

About the Book:

This book takes information interaction design as its research subject, reflecting on the theoretical essence of information interaction design within the framework of the design discipline and constructing a "four-dimensional integrated model". It systematically traces the developmental trajectory of information interaction design while placing particular emphasis on forecasting its future trends. Through systematic and logically structured theoretical exploration, the book aims to holistically and profoundly capture and explore the core principles and directional shifts of information interaction design, while offering references and insights for future practices in information interaction design.

About Author:

Zheng Yangshuo is a postdoctoral researcher at the Department of Information Art and Design, Tsinghua University Academy of Arts & Design, and a faculty member at the School of Art and Design, Wuhan University of Technology. He has published a textbook included in China's National 12th Five-Year Plan, authored over ten academic papers in both Chinese and English, and contributed multiple articles indexed by CSSCI, EI, and ISTP.

智能制造实践

Intelligent Manufacturing Practice



作者:杨建新、李双寿 Author: YANG Jianxin, LI Shuangshou ISBN: 9787302676652 Publication Date: 3/1/2025 Page Count: 184

About the Book:

Building on multiple intelligent manufacturing units and production lines developed by Tsinghua University's Fundamental Industrial Training Center, this book deeply integrates the working principles, technical methodologies, and engineering practices of intelligent manufacturing. Emphasizing the engineering application of digitalization, networking, and intelligentization in manufacturing, it incorporates modern teaching methods and digital design/simulation technologies to make hands-on learning more dynamic and tangible. The book covers intelligent transformation strategies for typical manufacturing processes and offers a comprehensive practice-oriented teaching framework, making it suitable for university laboratory and engineering training centers specializing in intelligent manufacturing. By aligning theoretical principles, technical approaches, and real-world engineering practices through Tsinghua's industrial training infrastructure, it aims to cultivate urgently needed talent for China's intelligent manufacturing sector.

About Author:

Yang Jianxin, Ph.D. in Engineering, is an associate professor at Tsinghua University and Deputy Director of the Fundamental Industrial Training Center. His research focuses on intelligent manufacturing and precision measurement technologies, with over 60 academic papers published in these fields.

智能优化设计:等几何拓扑优化方法与应用

Intelligent Optimization Design: Isogeometric Topology Optimization Methods and Applications



作者: 高亮、高杰、肖密、郭玉杰 Author: GAO Liang, GAO Jie, XIAO Mi, GUO Yujie ISBN: 9787302684848 Publication Date: 4/1/2025 Page Count: 356

About the Book:

This textbook focuses on intelligent optimization design methodologies, highlighting the advantages and applications of B-splines, NURBS (Non-Uniform Rational B-Splines), and T-splines in curve and surface modeling, as well as numerical simulation methods such as the finite element method in structural mechanics and related fields. It delves into classical approaches for isogeometric analysis and topology optimization, providing detailed explanations of isogeometric topology optimization theory and its practical effectiveness in engineering applications. Additionally, it explores the fundamental principles of isogeometric topology optimization in shell structure design. Finally, through MATLABbased numerical implementations, it demonstrates step-by-step procedures and techniques for performing isogeometric topology optimization using MATLAB software. The book offers a comprehensive and systematic introduction to the theoretical foundations and application scenarios of isogeometric topology optimization, supported by in-depth case studies and analyses. It is primarily tailored for senior undergraduates, postgraduates, and engineers in STEM-related disciplines, while also serving as a valuable reference for professionals engaged in related research and engineering practices.

About Author:

Gao Liang currently serves as Vice President of Huazhong University of Science and Technology. He earned his bachelor's degree from Xidian University in 1996 and received his Ph.D. from Huazhong University of Science and Technology in 2002.

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人工智能基础

Fundamentals of Artificial Intelligence



作者:赵海燕、吴潮潮、朱道也 Author: ZHAO Haiyan, WU Chaochao, ZHU Daoye ISBN: 9787302676355 Publication Date: 12/1/2024 Page Count: 172

About the Book:

This book serves as an introductory AI textbook for intelligent manufacturing-related disciplines. Organized into nine chapters, it establishes a robust framework integrating foundational theories with representative applications, covering concise mathematical fundamentals, core algorithmic architectures, and practical case studies. Co-authored by experts in intelligent manufacturing and artificial intelligence, it ensures scientific rigor aligned with AI principles while emphasizing application-driven knowledge tailored to intelligent manufacturing contexts. Case studies from the manufacturing domain further enhance its practicality. Designed as a course textbook, it is suitable for undergraduates in intelligent manufacturing, mechanical engineering, materials science, electrical engineering, electronic information science, and related fields seeking to study AI within a manufacturing-oriented framework.

About Author:

Zhao Haiyan is a tenured professor and doctoral supervisor in the Department of Mechanical Engineering at Tsinghua University. His research focuses on theoretical and methodological advancements in modeling and simulating forming manufacturing processes, as well as applications of artificial intelligence in advanced manufacturing technologies.

机器视觉

Machine Vision



作者:马洪兵 Author: MA Hongbing ISBN: 9787302676300 Publication Date: 1/1/2025 Page Count: 157

About the Book:

With the continuous advancement of science and technology, industrial robots have been widely adopted in industrial production, elevating the intelligentization level of manufacturing and thereby boosting productivity. Against the backdrop of intelligent manufacturing, this book examines key technologies in machine vision and explores its practical applications within intelligent manufacturing equipment. It covers the hardware systems of machine vision, algorithms central to machine vision, and 3D reconstruction techniques that play a pivotal role in the field. Concise and focused, the book employs accessible language, making it suitable for undergraduates in manufacturing-related fields while also aiming to assist technical professionals engaged in related industries.

About Author:

Ma Hongbing is affiliated with the Department of Electronic Engineering at Tsinghua University and the School of Information Science and Engineering at Xinjiang University. His research focuses on image processing and pattern recognition. He is the author of Principles of the Windows Operating System and Precision Agriculture Technologies and Applications, among other works.

虚拟仿真技术与应用

Virtual Simulation Technology and Applications



作者:张和明 Author: ZHANG Heming ISBN: 9787302675570 Publication Date: 11/1/2024 Page Count: 142

About the Book:

System simulation serves as a critical tool for studying, designing, analyzing, and evaluating complex systems. As smart manufacturing technologies characterized by digitalization, networking, and intelligentization advance, the role of system simulation in product development and manufacturing has become increasingly vital, now standing as a cornerstone for designing sophisticated products. As part of the Intelligent Manufacturing textbook series, this book, drawing on the author's years of research experience and evolving simulation technologies, strives to deliver a comprehensive yet concise introduction to system simulation within a limited text scope. Target audience: Students and professionals in smart manufacturing or related fields (e.g., mechanical engineering, industrial engineering, automation, computer science, instrumentation, management, etc.).

About Author:

Zhang Heming, a Professor and Doctoral Supervisor at the Institute of Industrial Intelligence and Systems, Department of Automation, Tsinghua University, has dedicated his career to enterprise informatization and intelligent manufacturing.

智能制造:技术、系统及典型应用

Intelligent Manufacturing: Technologies, Systems and Typical Applications



作者:张和明、赵骥、胡冰、孔凡利 Author: ZHANG Heming, ZHAO Ji, HU Bing, KONG Fanli ISBN: 9787302684855 Publication Date: 4/1/2025 Page Count: 476

About the Book:

This book is divided into three sections. Section I introduces the fundamentals of intelligent manufacturing, including a comprehensive review of industrial intelligence technologies, architectural frameworks for intelligent manufacturing systems in leading countries, an analysis of intelligent manufacturing structures in the aviation industry, and a capability maturity model for intelligent manufacturing. Section II delves into core technologies, covering sensing technologies (signals and data), integrated digital product modeling and design-manufacturing technologies, product design simulation and manufacturing process simulation, production system modeling and simulation, digital twin technology, advanced manufacturing and robotics, industrial big data and artificial intelligence, and industrial software and knowledge engineering in intelligent manufacturing. Section III focuses on implementing intelligent manufacturing systems. Through extensive case studies, the book illustrates methodologies for constructing equipment-level, production line-level, and factory-level intelligent manufacturing systems. Practical examples from domestic and international aviation industries highlight the deep integration of digital and intelligent technologies.

About Author:

Zhang Heming, a Professor and Doctoral Supervisor at the Institute of Industrial Intelligence and Systems, Department of Automation, Tsinghua University, has dedicated his career to enterprise informatization and intelligent manufacturing. He has led over 30 research projects, including those funded by the National Natural Science Foundation of China, published more than 150 academic papers, and authored two books. He was awarded the First Prize for Higher Education Teaching Achievements by the Chinese Association of Automation (CAA).

向量数据库: 大模型驱动的智能检索与应用

Vector Databases: Intelligent Retrieval and Applications Driven by Large Language Models



作者:梁楠 Author: LIANG Nan ISBN: 9787302685647 Publication Date: 4/1/2025 Page Count: 352

About the Book:

This book systematically introduces the principles, technical implementation, and applications of vector databases, with a focus on analyzing the limitations of traditional databases in handling high-dimensional vector data and providing corresponding solutions. Organized into four parts spanning 13 chapters, the content bridges theoretical foundations with technical practices, delving into challenges such as information loss in high-dimensional vector representations, embedding space discrepancies, and the curse of dimensionality. By leveraging mainstream open-source tools like FAISS and Milvus, it offers an in-depth analysis of vector database indexing mechanisms, search algorithms, and optimization strategies. Practical case studies demonstrate applications across domains such as recommendation systems, behavioral analytics, intelligent diagnostics, and semantic search, with special emphasis on enterprise-level semantic search system development and deployment. Tailored for engineers specializing in search engines and recommendation systems, practitioners in data science, artificial intelligence, and related fields, researchers, and readers intrigued by vector databases and similarity search, this book also serves as a teaching resource for training institutions and university courses.

About Author:

Liang Nan, Ph.D., graduated from Beihang University, has long been engaged in research and applications of pattern recognition, machine learning, and statistical theory. Having led or contributed to multiple research projects, he specializes in the development and application of artificial intelligence and large language models.

智能电容器开发设计与应用技术

Smart Capacitor Development, Design, and Application Technologies



作者:赵国鹏、刘涛 Author: ZHAO Guopeng, LIU Tao ISBN: 9787302677604 Publication Date: 1/1/2025 Page Count: 180

About the Book:

A smart capacitor is a low-voltage reactive power compensation device that integrates advanced technologies such as modern measurement and control, network communication, automatic control, and power electronics. This book provides an in-depth discussion on the development, design, and application technologies of smart capacitors. It comprehensively explores the structure of smart capacitors, design methodologies, controller design, key control technologies, microcontroller-based controller design, DSP-based controller design, simulation techniques, as well as engineering design and practical applications. The book emphasizes both the specific design techniques and engineering application technologies for these devices, combining insights into the internal structure, design methods, and design principles of smart capacitor products with real-world engineering projects and applications. It holistically presents the theoretical foundations, development processes, and practical implementations of smart capacitors. Serving as a reference for technical personnel engaged in the design, manufacturing, and application of smart capacitor devices and products, this book simultaneously illuminates the intertwined technologies of product development and engineering deployment.

About Author:

Zhao Guopeng has been teaching at the School of Electrical and Electronic Engineering at North China Electric Power University since 2011, specializing in research and education within the fields of power electronics and electric drive.

永磁电机高精度控制系统——从PID控制到智能控制

High-Precision Control Systems for Permanent Magnet Motors: From PID to Intelligent Control



作者:高钟毓、贺晓霞 Author: GAO Zhongyu, HE Xiaoxia ISBN: 9787302677598 Publication Date: 1/1/2025 Page Count: 272

About the Book:

This monograph systematically introduces the operational principles and mathematical models of brushless DC motors and permanent magnet synchronous motors. It covers the engineering implementation of voltage-source pulse-width modulation inverters and angle measurement components, along with design methodologies for PID control systems - including current-loop and position-loop tuning - and intelligent control strategies. These strategies encompass self-tuning fuzzy PID control, adaptive fuzzy sliding mode variable structure control, adaptive fuzzy backstepping control, and adaptive fuzzy/neural network dynamic surface control approaches.

About Author:

Gao Zhongyu is an emeritus professor at Tsinghua University's Department of Precision Instruments and a specialist in inertial navigation systems. He has dedicated his career to research in electromechanical control engineering, inertial instrumentation, and system development.

虚拟仿真

Virtual Simulation



作者:张和明 Author: ZHANG Heming ISBN: 9787302675280 Publication Date: 11/1/2024 Page Count: 251

About the Book:

System simulation serves as a critical tool for studying, designing, analyzing, and evaluating complex systems. As smart manufacturing technologies characterized by digitalization, networking, and intelligentization advance, the role of system simulation in product development and manufacturing has become increasingly vital, now standing as a cornerstone for designing sophisticated products. Drawing on the author's years of research experience and evolving simulation technologies, this book strives to deliver a comprehensive yet concise introduction to system simulation within a limited text scope. Target audience: Students and professionals in smart manufacturing or related fields (e.g., mechanical engineering, industrial engineering, automation, computer science, instrumentation, management, etc.).

About Author:

Zhang Heming, a Professor and Doctoral Supervisor at the Institute of Industrial Intelligence and Systems, Department of Automation, Tsinghua University, has dedicated his career to enterprise informatization and intelligent manufacturing.

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微小型无人水下航行器集群协同理论与应用。

Swarm Coordination Theories and Applications for Miniature Unmanned Underwater Vehicles



作者:梁洪涛、喻俊志、李慧平 Author: LIANG Hongtao, YU Junzhi, LI Huiping ISBN: 9787302664673 Publication Date: 1/1/2024 Page Count: 229

About the Book:

This book systematically introduces swarm coordination theories and applications for miniature unmanned underwater vehicles (UUVs), starting with complex system modeling and simulation research. It innovatively proposes the modeling theory of an immuneinspired agent interaction network (IAIN), while providing modeling methodologies from both individual intelligence and collective coordination perspectives, and applies these concepts to typical scenarios using a distributed simulation platform. The book is divided into six chapters. Chapter 1: Overview focuses on miniature UUV swarms, multi-agent system (MAS) modeling theories, and their technological advancements. Chapter 2 details the novel modeling theory of IAIN, explaining its composition, structure, and functionality through both static architecture and dynamic mechanisms. Chapter 3 introduces UUV intelligence modeling based on a multi-layered hybrid immune agent structure. Chapter 4 elaborates on swarm-agent modeling with adaptive dynamic collaboration and communication mechanisms under constraints. Chapter 5 discusses foundational models for information fusion and target tracking within the IAIN framework. Chapter 6 presents simulation studies of typical application scenarios using a distributed simulation system built on the NetLogo platform.

About Author:

Liang Hongtao, Associate Professor and master's supervisor at Northwestern Polytechnical University. He holds a Ph.D. in Control Theory and Control Engineering from the National Laboratory of Underwater Information Processing and Control at the same institution.

人因工程:原理、方法与设计

Human Factors Engineering: Principles, Methods, and Design



作者:吴昌旭 Author: WU Changxu ISBN: 9787302677901 Publication Date: 1/1/2025 Page Count: 259

About the Book:

This book draws on the author's over a decade of valuable human factors engineering teaching experience in both North America and China to systematically introduce the core principles, research methodologies, and applications of human factors engineering in human-machine-environment system design and product development. Through an innovative heuristic thinking approach, it inspires readers to cultivate independent critical thinking. The 15-chapter book features comprehensive content, combining accessible text, audio-visual materials, and extensive real-world case studies. Not only does it enable readers to fully grasp the principles and methodologies of human factors engineering, but it also stimulates original thought and innovation. It is ideal for students and educators in human factors engineering - including User Experience (UX) and user research - as well as related fields such as Industrial Engineering, Psychology (particularly Applied Psychology, including Engineering Psychology), Industrial Design, Software/Computer Science, Architecture, and Environmental Design. It also serves as a valuable resource for anyone interested in human factors engineering.

About Author:

Dr. Wu Changxu is a full professor in the Department of Industrial Engineering at Tsinghua University. He earned his Ph.D. in 2007 from the Department of Industrial and Operations Engineering at the University of Michigan, Ann Arbor.

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Fiber Optics (Fourth Edition)



作者:廖延彪、黎敏、夏历 Author: LIAO Yanbiao, LI Min, XIA Li ISBN: 9787302677758 Publication Date: 12/1/2024 Page Count: 372

About the Book:

This book rigorously examines the fundamental characteristics and applications of light transmission and sensing in optical fibers, grounded in electromagnetic theory. Organized into eight chapters, the content is structured across three primary sections: Fiber Theory and Characteristics, Fiber Optic Technologies and Devices, and Fiber Optic Applications. Key topics include: transmission theories for uniform refractive index and graded-index optical fibers; numerical analysis methods for optical fiber characterization; attenuation, dispersion, polarization, and nonlinear effects in fibers; design principles, connection techniques, processing protocols, and parameter measurement methodologies for optical fibers. Designed as a core textbook for undergraduates and postgraduates in optoelectronic information science, electronic information engineering, applied physics, and related disciplines, this work also serves as an essential reference for engineers and researchers in photonics technology development.

About Author:

Liao Yanbiao, Professor and Doctoral Supervisor at Tsinghua University's Department of Electronic Engineering, with over five decades of expertise in fiber optic transmission and sensing research. He has led multiple national key research initiatives and authored more than 200 academic publications.

Li Min, Professor and Doctoral Supervisor at Wuhan University of Technology's Department of Physics, specializing in fiber optics and micro-nano optical sensing. His scholarly contributions include over 50 peer-reviewed research articles.

Li Xia, Professor and Doctoral Supervisor at Huazhong University of Science and Technology's School of Optics and Electronic Information. His research focuses on fiberoptic sensors, biochemical sensing systems, and optical source design, with a publication record exceeding 100 academic papers.

Fiber Optics and Technology Fundamentals



作者: 闫平、赵莹、肖起榕 Author: YAN Ping, ZHAO Ying, XIAO Qirong ISBN: 9787302671893 Publication Date: 8/1/2024 Page Count: 410

About the Book:

Guided by modern fiber-optic application demands, this book comprehensively elaborates on the foundational theories and key technologies/principles of applied fiber optics. Specific content includes fiber-optic ray theory, wave theory, coupled-mode theory, and nonlinear theory, clarifying transmission characteristics, modal properties, as well as loss, dispersion, polarization, and nonlinear effects. It teaches fiber connection and on-fiber operation techniques, introduces specialty fibers, principles and methods for active/passive fiber devices, and the latest representative fiber-optic application systems. The book serves as a textbook for undergraduates and graduate students in Optical Engineering, Optoelectronic Technology, Optical Information Science and Engineering, Electronic Science and Technology, Measurement and Control Technology, and related disciplines. It also provides a reference for professionals in optical communications, fiber-optic light sources, fiber sensing, and fiber optics.

About Author:

Yan Ping, Ph.D., is a tenured professor and doctoral supervisor in the Department of Precision Instrument at Tsinghua University. A graduate of Beijing Institute of Technology with a major in Optical Engineering, he has dedicated over three decades to research in high-power fiber laser technology and all-solid-state laser technology.

数学通俗演义

The Popular Saga of Mathematics



作者:高鹏 Author:GAO Peng ISBN:9787302673835 Publication Date:9/1/2024 Page Count:222

About the Book:

This accessible science book chronicles the history of mathematics through the lens of a serialized novel. It comprehensively traces the origins and evolution of mathematics, spanning pivotal events, key figures, and the discovery and development of mathematical principles across ancient and modern times, as well as Eastern and Western traditions. While recounting this journey, it demystifies important mathematical concepts and theories with clarity, allowing readers to grasp their historical context and theoretical foundations. Through this dual focus on narrative and explanation, the book deepens readers' understanding of fundamental mathematical knowledge, empowering them to master these ideas with greater insight.

About Author:

Gao Peng, Associate Professor and graduate supervisor at Harbin Institute of Technology, is the author of the serialized science history work The Popular Saga of Physics, a 2023 nominee for China's Outstanding Popular Science Books List. This new volume, a companion to his earlier work, interweaves the sprawling, dramatic history of mathematics into a uniquely engaging narrative, blending the complexity of the subject with the vivid storytelling style of traditional Chinese chapter-fiction.

数学天方夜谭 数的龙门阵

Mathematical Tale: The Dragon Gate Formation of Numbers



作者: 陈永明、沈为民、朱行行 Author: CHEN Yongming, SHEN Weimin, **ZHU** Xinaxina ISBN: 9787302675006 Publication Date: 12/1/2024 Page Count: 264

About the Book:

It is a popular science storybook centered on algebra. It encompasses classical algebra topics like numbers, equations, functions, series, and limits, while also exploring elements of modern mathematics such as probability, sets, logic, combinations, algorithms, cryptography, and chaos.

About Author:

Chen Yongming, a renowned mathematics popular science writer and retired professor from the Xuhui District Institute of Education (Shanghai), began enjoying the State Council Special Government Allowance in 1992 (a lifelong honor for outstanding contributions), and was awarded the title of "Outstanding Popular Science Writer of Shanghai" in 2015. Shen Weimin, Senior Teacher at Lingling High School (Shanghai).

Zhu Xingxing, Senior Lecturer at Shanghai Technical Institute of Electronics and Information.

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数学天方夜谭:形的山海经

Mathematical Tale: Shape of the Classic of Mountains and Seas



作者:陈永明、沈为民、朱行行 Author: CHEN Yongming, SHEN Weimin, ZHU Xingxing ISBN: 9787302674993 Publication Date: 12/1/2024 Page Count: 148

About the Book:

It is a popular science story book exploring geometry through engaging narratives. It covers fundamental geometric concepts such as straight lines, circles, non-circular curves, and three-dimensional geometry, while also introduces topics like graph theory, topology, combinatorial geometry, and non-Euclidean geometry, thereby expanding the captivating realm of geometry.

About Author:

Chen Yongming, a renowned mathematics popular science writer and retired professor from the Xuhui District Institute of Education (Shanghai), began enjoying the State Council Special Government Allowance in 1992 (a lifelong honor for outstanding contributions), and was awarded the title of "Outstanding Popular Science Writer of Shanghai" in 2015. Shen Weimin, Senior Teacher at Lingling High School (Shanghai).

Zhu Xingxing, Senior Lecturer at Shanghai Technical Institute of Electronics and Information.

生活中的数学(第二版)

The Mathematics of Everyday Life (Second Edition)



作者: 杨峰\吴波 Author: YANG Feng, WU Bo ISBN: 9787302633037 Publication Date: 12/1/2023 Page Count: 256

About the Book:

The more we encounter something daily, the less likely we are to truly notice it. This book guides you in uncovering the mathematical beauty hidden within ordinary life. Fresh perspectives offer an entirely new way of seeing; Broad scope: Explores mathematical elegance through five distinct dimensions. Designed to spark mathematical curiosity across diverse audiences, the book's five chapters illuminate the beauty and playfulness of mathematics from multiple angles. Over 50 captivating real-world examples make it ideal for cultivating essential mathematical thinking in the AI era.

About Author:

Yang Feng, Master of Engineering, is a veteran programmer, and dedicated mathematics and science communicator. Passionate about authoring computer science and popular science literature, he excels at translating abstract ideas into engaging narratives that reveal mathematics' inherent charm and delight. Since its initial release, The Mathematics of Everyday Life has been reprinted nearly 20 times, earning widespread acclaim.

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什么是初中数学

What Is Middle School Mathematics



作者:柏干、范兴亚、李岩 Author: BAI Gan, FAN Xingya, LI Yan ISBN: 9787302671084 Publication Date: 10/1/2024 Page Count: 292

About the Book:

This book offers a unique perspective, using accessible, popularized language to trace the origins and interconnectedness of key mathematical concepts in middle school curricula. It explains how critical knowledge points can be integrated cohesively and unpacks the underlying logic behind challenging topics. Additionally, it explores related mathematical history, core ideas, and thinking methodologies, highlighting the subject's inherent fascination to spark readers' interest in mathematics. The author adopts a bird'seye view of the entire middle school mathematics framework, helping students grasp its structure holistically while deepening their understanding of individual concepts and their relationships. This approach not only strengthens mastery of foundational knowledge but also clarifies connections between topics, fostering a systematic comprehension of the discipline. Written in lively, vivid prose, the book is highly accessible and engaging.

About Author:

Bai Gan, a mathematics teacher at Beijing No. 4 High School and a graduate of Beijing Normal University with a focus on algebraic topology in pure mathematics.

物理学的100个基本问题

The 100 Fundamental Questions of Physics



作者: 陈世杰 Author: CHEN Shijie ISBN: 9787302670797 Publication Date: 10/1/2024 Page Count: 241

About the Book:

This book introduces the essence of physics and its unresolved challenges to the public through 100 foundational questions, exploring the difficulties and experiences humanity has encountered in posing and addressing them. Readers will gain insight into the basic principles and research methods of physics, as well as the cutting-edge issues currently captivating the field. The work allows readers to zoom out for a panoramic view of physics as a whole while also zooming in to explore the brilliance of groundbreaking scientific discoveries and the legacies of master scientists - from Galileo and Newton to Einstein, up to the latest Nobel Prize-winning breakthroughs. It spans the subatomic realms of particle physics to the vast cosmic expanse of astrophysics, bridging purely theoretical inquiries with modern high-tech applications. Written in an accessible yet profound style, the book combines reader-friendly explanations with vivid and engaging language, making complex ideas both approachable and compelling.

About Author:

Chen Shijie, a faculty member at Taiyuan University of Technology.

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感知化学——穿越时间的科学之旅系列

Perceiving Chemistry - A Scientific Journey Through Time (4 Volumes)



作者: 贾曌、胡杨、吴丹、王凯 Author: JIA Jiu, HU Yang, WU Dan, WANG Kai ISBN: 9787302667728 Publication Date: 10/1/2024 Page Count: 124

About the Book:

This is a collection of chemistry science popularization comic books, tailored specifically for young readers by a team of chemistry and art PhDs from Tsinghua University. This title delves into the applications of chemistry in modern life, such as long-staple cotton and oil refining, while also traces back to the remarkable inventions of ancient China, like silk and palace lanterns, and explores future applications, such as specialized glass materials. Exquisite illustrations and captivating storylines in each page enable children to enjoy the reading experience while subconsciously grasp the fundamental concepts and principles of chemistry.

About Author:

The author is a chemistry popularization group composed of Tsinghua University Ph.D. graduates, dedicated to disseminating chemical science knowledge and fostering scientific thinking methods among the public and youth through self-created, high-quality content. The team has published multiple books, earning honors including the "National Outstanding Popular Science Works" Award, the 2nd "Tongyue China" Original Excellent Children's Book Award (organized by the All-China Women's Federation and the China National Children's Center), and recognition in the 2022 Capital Popular Science Book Recommendation List curated by the Beijing Association for Science and Technology.

数字化转型时代:精准医学创新研究与产业发展报告(2023年第1册)

The Era of Digital Transformation:

Innovation Research and Industrial Development Report on Precision Medicine (2023 Volume 1)



作者:张宗久、王波、董家鸿、金春林、代涛 Author: ZHANG Zongiju, WANG Bo. DONG Jiahong, JIN Chunlin, DAI Tao ISBN: 9787302671725 Publication Date: 8/1/2024 Page Count: 195

About the Book:

The 2023 edition of this report is the collaborative effort of 17 research teams, building upon the 2022 version with updated and expanded content. It integrates frontier technological advancements and applications, precision strategies for the prevention, diagnosis, and treatment of major diseases, and outlines key development priorities aligned with China's current landscape in precision medicine research and industry. By constructing an ecosystem to support sustainable growth in precision medicine, this volume establishes a systematic and comprehensive framework spanning global trends, critical enabling factors, innovationdriven development, integration with translational medicine, and future prospects. Designed to holistically address all dimensions of precision medicine system development, it serves as a valuable reference for researchers, policymakers, and practitioners in related fields.

About Author:

Zhang Zongjiu is Executive Vice Dean and Chief Investigator at Tsinghua University's Institute for Hospital Management, where he directs the Research Center for Medical Data Standardization. As Leader of the National Health Commission's Expert Group on High-Quality Development of Public Hospitals, he previously served as Director of the Bureau of Medical Administration under the National Health Commission. During the COVID-19 pandemic in 2020, he led the Central Steering Group's Medical Response Team for epidemic control.

抗病毒药物研发原理:快速发现技术与应用实践

Principles of Antiviral Drug Development: Rapid Discovery Technologies and Practical Applications



作者: 刘艾林 Author: LIU Ailin ISBN: 9787302676232 Publication Date: 12/1/2024 Page Count: 373

About the Book:

This work is a comprehensive treatise on antiviral drug discovery technologies, methodologies, strategies, and their applications. Organized into six sections, the first three parts focus on core experimental techniques and virtual drug screening methodologies employed in antiviral drug discovery, while the latter three detail applied practices integrating experimental and computational approaches. Each section is structured into selfcontained chapters. For every experimental technique, the book begins by explaining its purpose and principles, followed by operational procedures, result evaluation criteria, key optimization strategies, and extensive literature references. Computational methodologies cover data resources, multi-dimensional virtual screening techniques, and network pharmacology approaches, collectively reflecting current mainstream and advanced algorithms that offer valuable references for early-career researchers.

About Author:

Liu Ailin, Ph.D., is a Professor and Doctoral Supervisor at the Institute of Materia Medica, Chinese Academy of Medical Sciences & Peking Union Medical College. From 2018 to 2019, she conducted visiting research at Purdue University College of Pharmacy. From 1998 to 2000, she has contributed to the establishment and development of the National Center for Drug Screening, where she continues her work. Her research focuses on novel drug discovery and mechanistic studies for infectious diseases, neurodegenerative disease therapeutics, and network pharmacology/informatics of traditional Chinese medicine. 理

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胸部电阻抗断层成像技术

Electrical Impedance Tomography of the Chest



作者:解立新、谢菲 Author: XIE Lixin, XIE Fei ISBN: 9787302670988 Publication Date: 8/1/2024 Page Count: 132

About the Book:

This book systematically elaborates the core principles and clinical translational value of the technology. Centering on "Electric Field Penetration + Electrical Impedance Analysis," the technique employs surface electrodes to inject weak currents into the thoracic cavity and collect voltage signals. Through three-dimensional inverse algorithms, it reconstructs real-time dynamic images of lung ventilation, blood perfusion, and tissue fluid distribution, overcoming the radiation limitations of traditional CT/X-ray and achieving "radiation-free, wearable, bedside continuous monitoring." Focusing on critical care medicine, the book deeply explores its clinical value in optimizing lung recruitment strategies for acute respiratory distress syndrome (ARDS) patients, assessing mechanical ventilation weaning timing, and dynamically monitoring pulmonary edema. For instance, by tracking lung ventilation homogeneity indices to guide prone positioning duration, it reduces mechanical ventilation time by approximately 30% compared to traditional empirical approaches. Technical chapters detail equipment operation protocols, including 16/32-electrode array configuration parameters, signal denoising threshold settings, and image artifact correction methods, supplemented with clinical cases.

About Author:

Xie Fei, Professor and Director of the Critical Care Medicine Division at the Department of Respiratory and Critical Care Medicine of the Chinese PLA General Hospital, serves as a member of the Respiratory Society of the Chinese Medical Association, the Respiratory Branch of the Chinese Medical Doctor Association, and the Critical Care Group of the PLA Respiratory Committee.

Xie Lixin, Chief Physician, Professor, and Doctoral Supervisor at the Department of Respiratory and Critical Care Medicine of the Chinese PLA General Hospital, holds roles as a National Committee Member of the Respiratory Society of the Chinese Medical Association, Leader of the Respiratory Therapy Group, and Advisor to the Critical Care Group.

机器人辅助人工关节置换手术技术

Robot-Assisted Artificial Joint Replacement Surgery



作者: 柴伟、李海峰、张国强、张卓 Author: Editor-in-Chief: CHAI Wei; Deputy Editors: LI Haifeng, ZHANG Guoqiang, ZHANG Zhuo ISBN: 9787302674214 Publication Date: 9/1/2024 Page Count: 272

About the Book:

This book focuses on the intelligent transformation of joint surgery, systematically integrating clinical practice with interdisciplinary medical-engineering innovations. Centered on the "Precision Planning–Intraoperative Navigation–Dynamic Adjustment" technical loop, it details how CT/MRI-based 3D reconstruction technology creates digital twin models of patient bones. Combined with a robotic arm's submillimeter-level positioning accuracy, it achieves mechanical axis alignment errors <0.5° and prosthetic implantation angle deviations <1°, reducing prosthetic loosening rates by 35% and shortening postoperative ambulation time to 12 hours compared to traditional methods. Drawing from over 200 total hip/knee replacement cases, the book dissects the robotic system's breakthroughs in complex scenarios like acetabular anteversion correction and knee flexion gap balancing. It addresses challenges such as bone registration drift and soft tissue interference with solutions like dynamic calibration via multimodal image registration and AI-assisted collision warning algorithms. Stepwise training modules are also included to help surgeons overcome learning curves, offering comprehensive guidance from foundational theory to clinical decision-making.

About Author:

Chai Wei, Professor, Chief Physician, and Doctoral Supervisor, serves as Director of the Joint Surgery Division at the Orthopedics Department of the Chinese PLA General Hospital. Li Haifeng is Associate Chief Physician at the Joint Surgery Division of the Orthopedics Department, Fourth Medical Center, Chinese PLA General Hospital.

Zhang Guoqiang, Professor, Chief Physician, and Doctoral Supervisor, is Deputy Director of the Joint Surgery Division at the Orthopedics Department, Fourth Medical Center, Chinese PLA General Hospital.

Zhang Zhuo, Associate Professor and Associate Chief Physician, practices at the Orthopedics Department of the Chinese PLA General Hospital.

100 Questions about Breast



作者: 四川省国际医学交流促进会乳腺肿瘤专委会 Author: Breast Cancer Society, Sichuan International Medical Exchange & Promotion Association ISBN: 9787302681601 Publication Date: 3/1/2025 Page Count: 156

About the Book:

This book covers foundational breast health knowledge, detailed explanations of various diseases, prevention strategies, and clarifications of common misconceptions. Its distinguishing features include accessible language, rich case studies, and professionally curated yet practical knowledge, designed for women, health-conscious men, and the general public interested in breast health. Readers will gain enhanced awareness to better safeguard their breast health. Compiled by a specialized team of breast health experts, the content ensures accuracy, reliability, and scientific rigor, delivering comprehensive breast health education. Complex medical concepts are transformed into easily digestible content through plain language and vivid analogies, making the material approachable for readers of all educational backgrounds. Coverage spans all aspects of breast health: anatomy and physiology, common disorders, preventive measures, key diagnostic criteria, treatment options, and post-treatment rehabilitation.

About Author:

Luo Ting, MD, is Deputy Director of the Breast Disease Center at West China Hospital of Sichuan University, Chief Physician, Master's Supervisor, and Standing Committee Member of the Youth Expert Committee of the Chinese Society of Clinical Oncology (CSCO). She serves as a committee member of the CSCO Breast Cancer Committee, founded the "Sichuan Breast Health Science Popularization Competition", and spearheaded the creation of the public health education platform "Ru Yan" (Questions about Breast) dedicated to breast health awareness. Her original science articles have won multiple awards in national competitions, including those hosted by the National Cancer Center.

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癌症天敌:免疫治疗的突破与希望

Cancer's Nemesis: Breakthroughs and Hope in Immunotherapy



作者:李治中 Author: LI Zhizhong ISBN: 9787302687801 Publication Date: 5/1/2025 Page Count: 176

About the Book:

This book is an accessible and in-depth popular science work on cancer immunotherapy. Starting with the intricate relationship between cancer cells and the immune system, it guides readers through the scientific principles and evolutionary journey of immunotherapy. From Nobel Prize-winning breakthroughs to modern applications of immune checkpoint inhibitors and cell therapies, and onward to cutting-edge advancements like cancer vaccines and oncolytic viruses, the book comprehensively illustrates how immunotherapy is reshaping the landscape of cancer treatment. It also unveils the profound connections between chemotherapy, radiation therapy, targeted drugs, and the immune system, while offering practical advice on boosting immunity through diet, exercise, and emotional management. Whether you are a cancer patient, a family member, or a curious reader fascinated by immunology, this book will inspire hope and illuminate how immunotherapy is ushering in a new dawn for humanity's battle against cancer.

About Author:

Li Zhizhong, pen name "Pineapple," holds an undergraduate degree from Tsinghua University and a Ph.D. in Cancer Biology from Duke University in the United States. He serves as a visiting professor at Peking University's School of Pharmaceutical Sciences and lectures on Tsinghua University's flagship course Cancer and Society.

生而不凡:当平凡人生遇见罕见疾病

Born Extraordinary: When Ordinary Lives Meet Rare Diseases



作者:豌豆Sir 病痛挑战基金会 Author: WanDou Sir, Illness Challenge Foundation ISBN: 9787302680833 Publication Date: 3/1/2025 Page Count: 152

About the Book:

This book is a rare disease science popularization work grounded in humanistic care and driven by scientific dissemination. Through over a hundred original hand-drawn illustrations and infographics, it systematically explains the pathogenesis, clinical features, and prevention strategies of representative rare diseases such as ALS and osteogenesis imperfecta, transforming complex medical knowledge into intuitive graphic narratives. Employing sequential comic storytelling to document real patient experiences - from the confusion of initial diagnosis to the courage of coexisting with illness, from healthcare challenges to societal prejudice - its delicate strokes vividly portray the resilience of vulnerable communities thriving amidst life's adversities.

About Author:

WanDou Sir, founded by Dr. Chen Yiwei in 2016, is China's leading public welfare platform dedicated to genetics and rare disease education, promoting knowledge dissemination and societal awareness to alleviate the impact of rare diseases on patients, families, and society. The Illness Challenge Foundation, Beijing's first nonprofit foundation focused on rare diseases, addresses critical issues faced by affected communities through patient support, sector empowerment, and public advocacy, striving to build an inclusive and respectful environment for individuals confronting health challenges.

漫画科学护理:我们的日常

Comic Science Nursing: Our Daily Lives



作者: 刘俐惠 主编 何菁、于恺英、王洋、耿海梅 副主编、杨新星 绘 Author: LIU Lihui (Editor), HE Jing, YU Kaiying, WANG Yang, GENG Haimei (Associate Editors), YANG Xinxing (Illustrator) ISBN: 9787302669005 Publication Date: 9/1/2024 Page Count: 120

About the Book:

Daily care focuses on prevention. Once you master nursing knowledge, you can calmly handle various situations. This book uses clear and engaging science-based comics to popularize daily nursing concepts and methods for the public, making nursing knowledge fun and easy to understand. It covers six major sections: sleep, diet, exercise, mental health, medical consultation basics, and home self-care. Through interactions between the protagonist "Flower Person" and adorable companions, it visually explains nursing principles and practices in daily life. This book is not only suitable for adults but also allows teenagers to learn foundational nursing basics during leisure time, thereby enhancing the entire family's health awareness and quality of life, turning nursing into a cornerstone of family well-being. Join us in effortlessly mastering these tips to protect the health of yourself and your loved ones!

About Author:

Liu Lihui is Director of the Nursing Department at Beijing Shijitan Hospital, affiliated with Capital Medical University, holding titles of Chief Nurse, Associate Professor, and Master's Supervisor. She concurrently serves as a council member of the 28th Chinese Nursing Association, standing council member of the 12th Beijing Nursing Association, and council member of the 3rd Beijing Nursing Practitioners Association.

做自己的医生: 自我疗愈与健康管理

Being Your Own Doctor: Self-Healing and Health Management



作者: 张文莉 (Dr. A.Z) Author: ZHANG Wenli (Dr. A.Z) ISBN: 9787302685135 Publication Date: 4/1/2025 Page Count: 485

About the Book:

This book provides a more holistic perspective on the widespread health issues of today (what), the root causes behind these problems (why), and self-healing health management solutions grounded in integrative medicine to address them (how). Drawing on profound theoretical knowledge and practical expertise, the author has crafted a comprehensive, systematic healing program encompassing eight key modules: body detoxification, holistic nutrition, exercise management, sleep management, emotional management, stress management, supplemental therapy, and mindfulness. The author believes that the best doctor is oneself - only individuals can heal themselves. Through this eight-module program, the book aims to empower people to live healthier, longer, and happier lives. It is designed for financially stable adults who, after meeting basic life needs, prioritize health for themselves and their families.

About Author:

Dr. Zhang Wenli (Dr. A.Z), MD, PhD in Cardiology, is an integrative medicine health management specialist, professor, and doctoral supervisor at the University of East-West Medicine's College of Integrative Medicine. She is an NCCAOM-certified traditional Chinese medicine practitioner and an IHP-certified holistic medical health instructor. Formerly Associate Chief Physician and Associate Professor at the Chinese PLA General Hospital, she has also served as a Visiting Associate Professor at Harvard Medical School and the UCLA Center for East-West Medicine.

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Understanding Brain Science: Making Learning Effortless and Effective



作者:余琴 Author: YU Qin ISBN: 9787302686781 Publication Date: 5/1/2025 Page Count: 264

About the Book:

Children's lack of interest in learning, procrastination on homework, poor focus, addiction to mobile games, exam anxiety, or slipping grades-these headaches for parents can't be solved by endless drills or sheer effort. Over time, such struggles only fuel a child's aversion to learning. These issues are merely symptoms; the root lies in the lack of learning motivation and scientific learning methods. The "brain" and "heart" of learning remain disengaged. This book combines 34 brain science principles and 37 parent-child exercises, seamlessly integrating cutting-edge neuroscience and psychology with actionable educational strategies and real-world case studies. Parents will learn to use science-backed techniques to enhance their child's memory retention, boost concentration, transform negative emotions, eliminate procrastination, and empower them to become top-performing, efficient learners!

About Author:

Yu Qin, a Master's graduate from Wuhan University, is a Youth Learning Ability Mentor, Senior Family Education Consultant, SEL (Social-Emotional Learning) Instructor for Children, Advanced Youth Learning Motivation Coach, Adolescent Psychological Counselor, and Internationally Certified Positive Discipline Parent/School Dual Instructor. As the founder of Hubei Aiyumei Education, she has provided family education guidance, learning ability enhancement, and solutions for academic disengagement to over 10,000 families.





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