Read Book Elaine Rich B Nair Pdf Artificial Intelligence Sie Kevin

Eventually, you will definitely discover a additional experience and completion by spending more cash. still when? get you believe that you require to acquire those all needs as soon as having significantly cash? Why dont you try to get something basic in the beginning? Thats something that will lead you to understand even more concerning the globe, experience, some places, like history, amusement, and a lot more?

It is your enormously own become old to con reviewing habit. in the middle of guides you could enjoy now is **Elaine Rich B Nair Pdf Artificial Intelligence Sie Kevin** below.

KEY=PDF - CARDENAS BATES

ARTIFICIAL INTELLIGENCE 3E (SIE)

Tata McGraw-Hill Education

SMART TECHNOLOGIES AND FUNDAMENTAL RIGHTS

BRILL The present volume, Smart Technologies and Fundamental Rights, contains fourteen outstanding and challenging articles concerning fundamental rights and Artificial Intelligence at the intersection of law, ethics and smart technologies.

INTERNATIONAL PERSPECTIVES ON ARTIFICIAL INTELLIGENCE

Anthem Press Artificial Intelligence, or AI, is set to redefine our day-to-day activities. Many companies across the globe are engaged in doing research on the application of AI in almost each and every aspect of our life. Many companies have already integrated AI in their manufacturing, supply chain, marketing and after sales operations, but there is a lot that needs to be done to capitalize the full potential of this technology. International Perspectives on Artificial Intelligence is an attempt to put together the work done across various countries on adapting and integrating Ai not only in organizations but also at individual and social levels.

AUTOMATA, COMPUTABILITY AND COMPLEXITY

THEORY AND APPLICATIONS

Prentice Hall The theoretical underpinnings of computing form a standard part of almost every computer science curriculum. But the classic treatment of this material isolates it from the myriad ways in which the theory influences the design of modern hardware and software systems. The goal of this book is to change that. The book is organized into a core set of chapters (that cover the standard material suggested by the title), followed by a set of appendix chapters that highlight application areas including programming language design, compilers, software verification, networks, security, natural language processing, artificial intelligence, game playing, and computational biology. The core material includes discussions of finite state machines, Markov models, hidden Markov models (HMMs), regular expressions, context-free grammars, pushdown automata, Chomsky and Greibach normal forms, context-free parsing, pumping theorems for regular and context-free languages, closure theorems and decision procedures for regular and context-free languages, Turing machines, nondeterminism, decidability and undecidability, the Church-Turing thesis, reduction proofs, Post Correspondence problem, tiling problems, the undecidability of first-order logic, asymptotic dominance, time and space complexity, the Cook-Levin theorem, NP-completeness, Savitch's Theorem, time and space hierarchy theorems, randomized algorithms and heuristic search. Throughout the discussion of these topics there are pointers into the application chapters. So, for example, the chapter that describes reduction proofs of undecidability has a link to the security chapter, which shows a reduction proof of the undecidability of the safety of a simple protection framework.

ARTIFICIAL INTELLIGENCE

SEARCH IN ARTIFICIAL INTELLIGENCE

Springer Science & Business Media Search is an important component of problem solving in artificial intelligence (AI) and, more generally, in computer science, engineering and operations research. Combinatorial optimization, decision analysis, game playing, learning, planning, pattern recognition, robotics and theorem proving are some of the areas in which search algbrithms playa key role. Less than a decade ago the conventional wisdom in artificial intelligence was that the best search algorithms had already been invented and the likelihood of finding new results in this area was very small. Since then many new insights and results have been obtained. For example, new algorithms for state space, AND/OR graph, and game tree search were discovered. Articles on new theoretical developments and experimental results on backtracking, heuristic search and constraint propaga tion were published. The relationships among various search and combinatorial algorithms in AI, Operations Research, and other fields were clarified. This volume brings together some of this recent work in a manner designed to be accessible to students and professionals interested in these new insights and developments.

DIVE INTO DEEP LEARNING

TOOLS FOR ENGAGEMENT

Corwin Press The leading experts in system change and learning, with their school-based partners around the world, have created this essential companion to their runaway best-seller, Deep Learning: Engage the World Change the World. This hands-on guide provides a roadmap for building capacity in teachers, schools, districts, and systems to design deep learning, measure progress, and assess conditions needed to activate and sustain innovation. Dive Into Deep Learning: Tools for Engagement is rich with resources educators need to construct and drive meaningful deep learning experiences in order to develop the kind of mindset and know-how that is crucial to becoming a problem-solving change agent in our global society. Designed in full color, this easy-to-use guide is loaded with tools, tips, protocols, and real-world examples. It includes: • A framework for deep learning that provides a pathway to develop the six global competencies needed to flourish in a complex world — character, citizenship, collaboration, communication, creativity, and critical thinking. • Learning progressions to help educators analyze student work and measure progress. • Learning design rubrics, templates and examples for incorporating the four elements of learning design: learning partnerships, pedagogical practices, learning environments, and leveraging digital. • Conditions rubrics, teacher self-assessment tools, and planning guides to help educators build, mobilize, and sustain deep learning in schools and districts. Learn about, improve, and expand your world of learning. Put the joy back into learning for students and adults alike. Dive into deep learning to create learning experiences that give purpose, unleash student potential, and transform not only learning, but life itself.

ARTIFICIAL INTELLIGENCE

BUILDING INTELLIGENT SYSTEMS

PHI Learning Pvt. Ltd. There has been a movement over the years to make machines intelligent. With the advent of modern technology, AI has become the core part of day-to-day life. But it is accentuated to have a book that keeps abreast of all the state-of-the-art concepts (pertaining to AI) in simplified, explicit and elegant way, expounding on ample examples so that the beginners are able to comprehend the subject with ease. The book on Artificial Intelligence, dexterously divided into 21 chapters, fully satisfies all these pressing needs. It is intended to put each and every concept related to intelligent system in front of the readers in the most simplified way so that while understanding the basic concepts, they will develop thought process that can contribute to the building of advanced intelligent systems. Various cardinal landmarks pertaining to the subject such as problem solving, search techniques, intelligent agents, constraint satisfaction problems, knowledge representation, planning, machine learning, natural language processing, pattern recognition, game playing, hybrid and fuzzy systems, neural network-based learning and future work and trends in AI are now under the single umbrella of this book, thereby showing a nice blend of theoretical and practical aspects. With all the latest information incorporated and several pedagogical attributes included, this textbook is an invaluable learning tool for the undergraduate and postgraduate students of computer science and engineering, and information technology. KEY FEATURES • Highlights a clear and concise presentation through adequate study material • Follows a systematic approach to explicate fundamentals as well as recent advances in the area • Presents ample relevant problems in the form of multiple choice questions, concept review questions, critical thinking exercise and project work • Incorporates various case studies for major topics as well as numerous industrial examples

ARTIFICIAL INTELLIGENCE

STRUCTURES AND STRATEGIES FOR COMPLEX PROBLEM SOLVING

Pearson Higher Ed This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Artificial Intelligence: Structures and Strategies for Complex Problem Solving is ideal for a one- or two-semester undergraduate course on AI. In this accessible, comprehensive text, George Luger captures the essence of artificial intelligence–solving the complex problems that arise wherever computer technology is applied. Ideal for an undergraduate course in AI, the Sixth Edition presents the fundamental concepts of the discipline first then goes into detail with the practical information necessary to implement the algorithms and strategies discussed. Readers learn how to use a number of different software tools and techniques to address the many challenges faced by today's computer scientists.

INTRODUCTION TO ARTIFICIAL INTELLIGENCE AND EXPERT SYSTEMS

TECHNOLOGIES, ARTIFICIAL INTELLIGENCE AND THE FUTURE OF LEARNING POST-COVID-19

THE CRUCIAL ROLE OF INTERNATIONAL ACCREDITATION

Springer This book aims to assess the experience of education during COVID-19 pandemic and explore the future of application of technologies and artificial intelligence in education. Education delivery requires the support of new technologies such as artificial intelligence (AI), the Internet of Things (IoT), big data, and machine learning to fight and aspire to new diseases. The academic community and those interested in education agree that education after the corona pandemic will not be the same as before. The book also questions the role of accreditation bodies (e.g., AACSB, etc.) to ensure the effectiveness and efficiency of technology tools in achieving distinguished education in times of crisis.

ATMOSPHERIC CHEMISTRY

Royal Society of Chemistry Atmospheric Chemistry provides readers with a basic knowledge of the chemistry of Earth's atmosphere, and an understanding of the role that chemical transformations play in this vital part of our environment. The composition of the 'natural' atmosphere (troposphere, stratosphere and mesosphere) is described in terms of the physical and chemical cycles that govern the behaviour of the major and the many minor species present, and of the atmospheric lifetimes of those species. An extension of these ideas leads to a discussion of the impacts of Man's activities on the atmosphere, and to an understanding of some of the most important environmental issues of our time. One thread of the book explains how living organisms alter the composition and pressures in the atmosphere, modify temperatures, and change the intensity and wavelength-distribution of light arriving from the Sun. Meanwhile, the living organisms on Earth have depended on these very same environmental conditions being satisfactory for the maintenance and evolution of life. There thus appear to be two-way interactions between life and the atmosphere. Man, just one species of living organism, has developed an unfortunate ability to interfere with the feedbacks that seem to have maintained the atmosphere to be supportive of surface life for more than 3.5 billion years. This book will help chemists to understand the background to the problems that arise from such interference. The structure of the book and the development of the subject deviate somewhat from those usually encountered. Important and recurring concepts are presented in outline first, before more detailed discussions of the atmospheric behaviour of specific chemical species. Examples of such themes are the sources and sinks of trace gases, and their budgets and lifetimes. That is, the emphasis is initially on the principles of the subject, with the finer points emerging at later points in the book, sometimes in several successive chapters. In this way, some of the core material gets repeated exposure, but in new ways and in new contexts. The book is written at a level that makes it accessible to undergraduate chemists, and in a manner that should make it interesting to them. However, the material presented forms a solid base for those who are extending their studies to a higher level, and it will also provide non-specialists with the background to an understanding of Man's several and varied threats to the atmosphere. Well-informed citizens can then better assess measures proposed to prevent or alleviate the potential damage, and policy makers more realistically formulate the necessary controls on a sound scientific foundation.

ARTIFICIAL INTELLIGENCE

A MODERN APPROACH

Presents a guide to artificial intelligence, covering such topics as intelligent agents, problem-solving, logical agents, planning, uncertainty, learning, and robotics.

APPLICATIONS OF SOFT COMPUTING

RECENT TRENDS

Springer Science & Business Media This book provides a comprehensive overview of recent advances in the industrial applications of soft computing. It covers a wide range of application areas, including optimisation, data analysis and data mining, computer graphics and vision, prediction and diagnosis, design, intelligent control, and traffic and transportation systems. The book is aimed at researchers and professional engineers engaged in developing and applying intelligent systems.

COMPUTERS AND THOUGHT

Computers and Thought showcases the work of the scientists who not only defined the field of Artificial Intelligence, but who are responsible for having developed it into what it is today. Originally published in 1963, this collection includes twenty classic papers by such pioneers as A. M. Turing and Marvin Minsky who were behind the pivotal advances in artificially simulating human thought processes with computers.

ARTIFICIAL INTELLIGENCE IN EDUCATION

22ND INTERNATIONAL CONFERENCE, AIED 2021, UTRECHT, THE NETHERLANDS, JUNE 14–18, 2021, PROCEEDINGS, PART I

Springer This two-volume set LNAI 12748 and 12749 constitutes the refereed proceedings of the 22nd International Conference on Artificial Intelligence in Education, AIED 2021, held in Utrecht, The Netherlands, in June 2021.* The 40 full papers presented together with 76 short papers, 2 panels papers, 4 industry papers, 4 doctoral consortium, and 6 workshop papers were carefully reviewed and selected from 209 submissions. The conference provides opportunities for the cross-fertilization of approaches, techniques and ideas from the many fields that comprise AIED, including computer science, cognitive and learning sciences, education, game design, psychology, sociology, linguistics as well as many domain-specific areas. *The conference was held virtually due to the COVID-19 pandemic.

ILLUSTRATED COMPUTATIONAL INTELLIGENCE

EXAMPLES AND APPLICATIONS

Springer Nature This book presents a summary of artificial intelligence and machine learning techniques in its first two chapters. The remaining chapters of the book provide everything one must know about the basic artificial intelligence to modern machine intelligence techniques including the hybrid computational intelligence technique, using the concepts of several real-life solved examples, design of projects and research ideas. The solved examples with more than 200 illustrations presented in the book are a great help to instructors, students, non-AI professionals, and researchers. Each example is discussed in detail with encoding, normalization, architecture, detailed design, process flow, and sample input/output. Summary of the fundamental concepts with solved examples is a unique combination and highlight of this book.

THE DATA SCIENCE DESIGN MANUAL

Springer This engaging and clearly written textbook/reference provides a must-have introduction to the rapidly emerging interdisciplinary field of data science. It focuses on the principles fundamental to becoming a good data scientist and the key skills needed to build systems for collecting, analyzing, and interpreting data. The Data Science Design Manual is a source of practical insights that highlights what really matters in analyzing data, and provides an intuitive understanding of how these core concepts can be used. The book does not emphasize any particular programming language or suite of data-analysis tools, focusing instead on high-level discussion of important design principles. This easy-to-read text ideally serves the needs of undergraduate and early graduate students embarking on an "Introduction to Data Science" course. It reveals how this discipline sits at the intersection of statistics, computer science, and machine learning, with a distinct heft and character of its own. Practitioners in these and related fields will find this book perfect for self-study as well. Additional learning tools: Contains "War Stories," offering perspectives on how data science applies in the real world Includes "Homework Problems," providing a wide range of exercises and projects for self-study Provides a complete set of lecture slides and online video lectures at www.data-manual.com Provides "Take-Home Lessons," emphasizing the big-picture concepts to learn from each chapter Recommends exciting "Kaggle Challenges" from the online platform Kaggle Highlights "False Starts," revealing the subtle reasons why certain approaches fail Offers examples taken from the data science television show "The Quant Shop" (www.quant-shop.com)

HELLO, ANDROID

INTRODUCING GOOGLE'S MOBILE DEVELOPMENT PLATFORM

Pragmatic Bookshelf Google Android dominates the mobile market, and by targeting Android, your apps can run on most of the phones and tablets in the world. This new fourth edition of the #1 book for learning Android covers all modern Android versions from Android 4.1 through Android 5.0. Freshly added material covers new Android features such as Fragments and Google Play Services. Android is a platform you can't afford not to learn, and this book gets you started. Android is a software toolkit for mobile phones and tablets, created by Google. It's inside more than a billion devices, making Android the number one platform for application developers. Your own app could be running on all those devices! Getting started developing with Android is easy. You don't even need access to an Android phone, just a computer where you can install the Android SDK and the emulator that comes with it. Within minutes, Hello, Android gets you creating your first working application: Android's version of "Hello, World." From there, you'll build up a more substantial example: an Ultimate Tic-Tac-Toe game. By gradually adding features to the game, you'll learn about many aspects of Android programming, such as creating animated user interfaces, playing music and sound effects, building location-based services (including GPS and cell-tower triangulation), and accessing web services. You'll also learn how to publish your applications to the Google Play Store. This fourth edition of the bestselling Android classic has been revised for Android 4.1-4.3 (Jelly Bean), 4.4 (KitKat), and Android 5.0 (Lollipop). Topics have been streamlined and simplified based on reader feedback, and every page and example has been reviewed and updated for compatibility with the latest versions of Android. If you'd rather be coding than reading about coding, this book is for you.

PERCEPTRONS, REISSUE OF THE 1988 EXPANDED EDITION WITH A NEW FOREWORD BY LÉON BOTTOU

AN INTRODUCTION TO COMPUTATIONAL GEOMETRY

MIT Press The first systematic study of parallelism in computation by two pioneers in the field. Reissue of the 1988 Expanded Edition with a new foreword by Léon Bottou In 1969, ten years after the discovery of the perceptron—which showed that a machine could be taught to perform certain tasks using examples—Marvin Minsky and Seymour Papert published Perceptrons, their analysis of the computational capabilities of perceptrons for specific tasks. As Léon Bottou writes in his foreword to this edition, "Their rigorous work and brilliant technique does not make the perceptron look very good." Perhaps as a result, research turned away from the perceptron. Then the pendulum swung back, and machine learning became the fastest-growing field in computer science. Minsky and Papert's insistence on its theoretical foundations is newly relevant. Perceptrons—the first systematic study of parallelism in computation—marked a historic turn in artificial intelligence, returning to the idea that intelligence might emerge from the activity of networks of neuron-like entities. Minsky and Papert provided mathematical analysis that showed the limitations of a class of computing machines that could be considered as models of the brain. Minsky and Papert added a new chapter in 1987 in which they discuss the state of parallel computers, and note a central theoretical challenge: reaching a deeper understanding of how "objects" or "agents" with individuality can emerge in a network. Progress in this area would link connectionism with what the authors have called "society theories of mind."

INTRODUCTION TO ARTIFICIAL INTELLIGENCE

Springer This accessible and engaging textbook presents a concise introduction to the exciting field of artificial intelligence (AI). The broad-ranging discussion covers the key subdisciplines within the field, describing practical algorithms and concrete applications in the areas of agents, logic, search, reasoning under uncertainty, machine learning, neural networks, and reinforcement learning. Fully revised and updated, this much-anticipated second edition also includes new material on deep learning. Topics and features: presents an application-focused and hands-on approach to learning, with supplementary teaching resources provided at an associated website; contains numerous study exercises and solutions, highlighted examples, definitions, theorems, and illustrative cartoons; includes chapters on predicate logic, PROLOG, heuristic search, probabilistic reasoning, machine learning and data mining, neural networks and reinforcement learning; reports on developments in deep learning, including applications of neural networks to generate creative content such as text, music and art (NEW); examines performance evaluation of clustering algorithms, and presents two practical examples explaining Bayes' theorem and its relevance in everyday life (NEW); discusses search algorithms, analyzing the cycle check, explaining route planning for car navigation systems, and introducing Monte Carlo Tree Search (NEW); includes a section in the introduction on AI and society, discussing the implications of AI on topics such as employment and transportation (NEW). Ideal for foundation courses or modules on AI, this easy-to-read textbook offers an excellent overview of the field for students of computer science and other technical disciplines, requiring no more than a high-school level of knowledge of mathematics to understand the material.

SEMANTIC NETWORKS IN ARTIFICIAL INTELLIGENCE

Pergamon Hardbound. Semantic Networks are graphic structures used to represent concepts and knowledge in computers. Key uses include natural language understanding, information retrieval, machine vision, object-oriented analysis and dynamic control of combat aircraft. This major collection addresses every level of reader interested in the field of knowledge representation. Easy to read surveys of the main research families, most written by the founders, are followed by 25 widely varied articles on semantic networks and the conceptual structure of the world. Some extend ideas of philosopher Charles S Peirce 100 years ahead of his time. Others show connections to databases, lattice theory, semiotics, real-world ontology, graph-grammers, lexicography, relational algebras, property inheritance and semantic primitives. Hundreds of pictures show semantic networks as a visual language of thought.

MACHINE LEARNING METHODS FOR PLANNING

Morgan Kaufmann Machine Learning Methods for Planning provides information pertinent to learning methods for planning and scheduling. This book covers a wide variety of learning methods and learning architectures, including analogical, case-based, decision-tree, explanation-based, and reinforcement learning. Organized into 15 chapters, this book begins with an overview of planning and scheduling and describes some representative learning systems that have been developed for these tasks. This text then describes a learning apprentice for calendar management. Other chapters consider the problem of temporal credit assignment and describe tractable classes of problems for which optimal plans can be derived. This book discusses as well how reactive, integrated systems give rise to new requirements and opportunities for machine learning. The final chapter deals with a method for learning problem decompositions, which is based on an idealized model of efficiency for problem-reduction search. This book is a valuable resource for production managers, planners, scientists, and research workers.

ARTIFICIAL INTELLIGENCE WITH PYTHON

YOUR COMPLETE GUIDE TO BUILDING INTELLIGENT APPS USING PYTHON 3.X, 2ND EDITION

Packt Publishing Ltd New edition of the bestselling guide to artificial intelligence with Python, updated to Python 3.x, with seven new chapters that cover RNNs, AI and Big Data, fundamental use cases, chatbots, and more. Key FeaturesCompletely updated and revised to Python 3.xNew chapters for AI on the cloud, recurrent neural networks, deep learning models, and feature selection and engineeringLearn more about deep learning algorithms, machine learning data pipelines, and chatbotsBook Description Artificial Intelligence with Python, Second Edition is an updated and expanded version of the bestselling guide to artificial intelligence using the latest version of Python 3.x. Not only does it provide you an introduction to artificial intelligence, this new edition goes further by giving you the tools you need to explore the amazing world of intelligent apps and create your own applications. This edition also includes seven new chapters on more advanced concepts of Artificial Intelligence, including fundamental use cases of AI; machine learning data pipelines; feature selection and feature engineering; AI on the cloud; the basics of chatbots; RNNs and DL models; and AI and Big Data. Finally, this new edition explores various real-world scenarios and teaches you how to apply relevant AI algorithms to a wide swath of problems, starting with the most basic AI concepts and progressively building from there to solve more difficult challenges so that by the end, you will have gained a solid understanding of, and when best to use, these many artificial intelligence techniques. What you will learnUnderstand what artificial intelligence, machine learning, and data science isExplore the most common artificial intelligence use casesLearn how to build a machine learning pipelineAssimilate the basics of feature selection and feature engineeringIdentify the differences between supervised and unsupervised learningDiscover the most recent advances and tools offered for AI development in the cloudDevelop automatic speech recognition systems and chatbotsApply AI algorithms to time series dataWho this book is for The intended audience for this book is Python developers who want to build real-world Artificial Intelligence applications. Basic Python programming experience and awareness of machine learning concepts and techniques is mandatory.

ADVANCED METHODS FOR KNOWLEDGE DISCOVERY FROM COMPLEX DATA

Springer Science & Business Media The growth in the amount of data collected and generated has exploded in recent times with the widespread automation of various day-to-day activities, advances in high-level scienti?c and engineering research and the development of e?cient data collection tools. This has given rise to the need for automa-callyanalyzingthedatainordertoextractknowledgefromit,therebymaking the data potentially more useful. Knowledge discovery and data mining (KDD) is the process of identifying valid, novel, potentially useful and ultimately understandable patterns from massive data repositories. It is a multi-disciplinary topic, drawing from s- eral ?elds including expert systems, machine learning, intelligent databases, knowledge acquisition, case-based reasoning, pattern recognition and stat- tics. Many data mining systems have typically evolved around well-organized database systems (e.g., relational databases) containing relevant information. But, more and more, one ?nds relevant information hidden in unstructured text and in other complex forms. Mining in the domains of the world-wide web, bioinformatics, geoscienti?c data, and spatial and temporal applications comprise some illustrative examples in this regard. Discovery of knowledge, or potentially useful patterns, from such complex data often requires the - plication of advanced techniques that are better able to exploit the nature and representation of the data. Such advanced methods include, among o- ers, graph-based and tree-based approaches to relational learning, sequence mining, link-based classi?cation, Bayesian networks, hidden Markov models, neural networks, kernel-based methods, evolutionary algorithms, rough sets and fuzzy logic, and hybrid systems. Many of these methods are developed in the following chapters.

FUNDAMENTALS OF THE NEW ARTIFICIAL INTELLIGENCE

NEURAL, EVOLUTIONARY, FUZZY AND MORE

Springer Science & Business Media The book covers the most essential and widely employed material in each area, particularly the material important for real-world applications. Our goal is not to cover every latest progress in the fields, nor to discuss every detail of various techniques that have been developed. New sections/subsections added in this edition are: Simulated Annealing (Section 3.7), Boltzmann Machines (Section 3.8) and Extended Fuzzy if-then Rules Tables (Sub-section 5.5.3). Also, numerous changes and typographical corrections have been made throughout the manuscript. The Preface to the first edition follows. General scope of the book Artificial intelligence (AI) as a field has undergone rapid growth in diversification and practicality. For the past few decades, the repertoire of AI techniques has evolved and expanded. Scores of newer fields have been added to the traditional symbolic AI. Symbolic AI covers areas such as knowledge-based systems, logical reasoning, symbolic machine learning, search techniques, and natural language processing. The newer fields include neural networks, genetic algorithms or evolutionary computing, fuzzy systems, rough set theory, and chaotic systems.

FOUNDATIONS OF ARTIFICIAL INTELLIGENCE

MIT Press In the 11 contributions, theorists historically associated with each position identify the basic tenets of their position.Have the classical methods and ideas of AI outlived their usefulness? Foundations of Artificial Intelligence critically evaluates the fundamental assumptions underpinning the dominant approaches to AI. In the 11 contributions, theorists historically associated with each position identify the basic tenets of their position. They discuss the underlying principles, describe the natural types of problems and tasks in which their approach succeeds, explain where its power comes from, and what its scope and limits are. Theorists generally skeptical of these positions evaluate the effectiveness of the method or approach and explain why it works - to the extent they believe it does - and why it eventually fails.ContentsFoundations of AI: The Big Issues, D. Kirsh - Logic and Artificial Intelligence, N. J. Nilsson - Rigor Mortis: A Response to Nilsson's 'Logic and Artificial Intelligence, ' L. Birnbaum - Open Information Systems Semantics for

Distributed Artificial Intelligence, C. Hewitt - Social Conceptions of Knowledge and Action: DAI Foundations and Open Systems Semantics, L. Gasser - Intelligence without Representation, R. A. Brooks - Today the Earwig, Tomorrow Man? D. Kirsh - On the Thresholds of Knowledge, D. B. Lenat, E. A. Feigenbaum - The Owl and the Electric Encyclopedia, B. C. Smith - A Preliminary Analysis of the Soar Architecture as a Basis for General Intelligence, P. S. Rosenbloom, J. E. Laird, A. Newell, R. McCarl - Approaches to the Study of Intelligence, D. A. Norman

TRENDS AND ADVANCES IN INFORMATION SYSTEMS AND TECHNOLOGIES

VOLUME 3

Springer This book includes a selection of papers from the 2018 World Conference on Information Systems and Technologies (WorldCIST'18), held in Naples, Italy on March27-29, 2018. WorldCIST is a global forum for researchers and practitioners to present and discuss recent results and innovations, current trends, professional experiences and the challenges of modern information systems and technologies research together with their technological development and applications. The main topics covered are: A) Information and Knowledge Management; B) Organizational Models and Information Systems; C) Software and Systems Modeling; D) Software Systems, Architectures, Applications and Tools; E) Multimedia Systems and Applications; F) Computer Networks, Mobility and Pervasive Systems; G) Intelligent and Decision Support Systems; H) Big Data Analytics and Applications; I) Human-Computer Interaction; J) Ethics, Computers & Security; K) Health Informatics; L) Information Technologies in Education; M) Information Technologies in Radiocommunications; N) Technologies for Biomedical Applications.

ARTIFICIAL INTELLIGENCE AND LEGAL ANALYTICS

NEW TOOLS FOR LAW PRACTICE IN THE DIGITAL AGE

Cambridge University Press The field of artificial intelligence (AI) and the law is on the cusp of a revolution that began with text analytic programs like IBM's Watson and Debater and the open-source information management architectures on which they are based. Today, new legal applications are beginning to appear and this book - designed to explain computational processes to non-programmers - describes how they will change the practice of law, specifically by connecting computational models of legal reasoning directly with legal text, generating arguments for and against particular outcomes, predicting outcomes and explaining these predictions with reasons that legal professionals will be able to evaluate for themselves. These legal applications will support conceptual legal information retrieval and allow cognitive computing, enabling a collaboration between humans and computers in which each does what it can do best. Anyone interested in how AI is changing the practice of law should read this illuminating work.

HBR'S 10 MUST READS ON LEADING DIGITAL TRANSFORMATION (WITH BONUS ARTICLE "HOW APPLE IS ORGANIZED FOR INNOVATION" BY JOEL M. PODOLNY AND MORTEN T. HANSEN)

Harvard Business Press Become a digital-first organization—and avoid disruption. If you read nothing else on the principles and practices that lead to successful digital transformation, read these 10 articles. We've combed through hundreds of Harvard Business Review articles and selected the most important ones to help you reinvent your digital strategy, overcome barriers to change, and win in the continuously connected world. This book will inspire you to: Devise an industry-transforming business model Minimize risk using discovery-driven transformation Leverage torrents of data more strategically Prepare your employees for the future of work Prioritize the right initiatives Compete in the age of AI This collection of articles includes "Discovery-Driven Digital Transformation," by Rita McGrath and Ryan McManus; "The Transformative Business Model," by Stelios Kavadias, Kostas Ladas, and Christoph Loch; "Digital Doesn't Have to Be Disruptive," by Nathan Furr and Andrew Shipilov; "What's Your Data Strategy?," by Leandro DalleMule and Thomas H. Davenport; "Competing in the Age of AI," by Marco Iansiti and Karim R. Lakhani; "Building the AI-Powered Organization," by Tim Fountaine, Brian McCarthy, and Tamim Saleh; "How Smart, Connected Products Are Transforming Companies," by Michael E. Porter and James E. Heppelmann; "The Age of Continuous Connection," by Nicolaj Siggelkow and Christian Terwiesch; "The Problem with Legacy Ecosystems," by Maxwell Wessel, Aaron Levie, and Robert Siegel; "Your Workforce Is More Adaptable Than You Think," by Joseph B. Fuller, Judith K. Wallenstein, Manjari Raman, and Alice de Chalendar; "How Apple Is Organized for Innovation," by Joel M. Podolny and Morten T. Hansen; and "Digital Transformation Comes Down to Talent in Four Key Areas," by Thomas H. Davenport and Thomas C. Redman. HBR's 10 Must Reads paperback series is the definitive collection of books for new and experienced leaders alike. Leaders looking for the inspiration that big ideas provide, both to accelerate their own growth and that of their companies, should look no further. HBR's 10 Must Reads series focuses on the core topics that every ambitious manager needs to know: leadership, strategy, change, managing people, and managing yourself. Harvard Business Review has sorted through hundreds of articles and selected only the most essential reading on each topic. Each title includes timeless advice that will be relevant regardless of an ever-changing business environment.

ARTIFICIAL INTELLIGENCE FOR DUMMIES

John Wiley & Sons Step into the future with AI The term "Artificial Intelligence" has been around since the 1950s, but a lot has changed since then. Today, AI is referenced in the news, books, movies, and TV shows, and the exact definition is often misinterpreted. Artificial Intelligence For Dummies provides a clear introduction to AI and how it's being used today. Inside, you'll get a clear overview of the technology, the common misconceptions surrounding it, and a fascinating look at its applications in everything from self-driving cars and drones to its contributions in the medical field. Learn about what AI has contributed to society Explore uses for AI in computer applications Discover the limits of what AI can do Find out about the history of AI The world of AI is fascinating—and this hands-on guide makes it more accessible than ever!

MATLAB DEEP LEARNING

WITH MACHINE LEARNING, NEURAL NETWORKS AND ARTIFICIAL INTELLIGENCE

Apress Get started with MATLAB for deep learning and AI with this in-depth primer. In this book, you start with machine learning fundamentals, then move on to neural networks, deep learning, and then convolutional neural networks. In a blend of fundamentals and applications, MATLAB Deep Learning employs MATLAB as the underlying programming language and tool for the examples and case studies in this book. With this book, you'll be able to tackle some of today's real world big data, smart bots, and other complex data problems. You'll see how deep learning is a complex and more intelligent aspect of machine learning for modern smart data analysis and usage. What You'll Learn Use MATLAB for deep learning Discover neural networks and multi-layer neural networks Work with convolution and pooling layers Build a MNIST example with these layers Who This Book Is For Those who want to learn deep learning using MATLAB. Some MATLAB experience may be useful.

ARTIFICIAL INTELLIGENCE AND INTELLIGENT SYSTEMS

Oxford University Press, USA Artificial Intelligence and Intelligent Systems provides a comprehensive coverage of the fundamental concepts and techniques in artificial intelligence. The book discusses current trends in AI and its application to various fields. Intelligent systems such as expert systems, fuzzy systems, artificial neural networks, genetic algorithms, and swarm intelligent systems are discussed in detail with examples to facilitate in-depth understanding of AI. The text emphasizes the solution of real-world problems using the latest AI techniques. Since the ultimate goal of AI is the construction of programs to solve problems, an entire chapter has been devoted to the programming languages used in AI problem solving. Written in a clear and lucid style, this student-friendly book has been specially designed for undergraduate engineering students. With its application oriented approach and inclusion of recent topics, the book would also be useful to postgraduate students and researchers in th is field. Features * Includes real-world examples to illustrate concepts * Contains a separate chapter on programming languages in AI * Includes new topics such as swarn intelligent systems * Explains genetic algorithms and swarn intelligence using examples * Provides numerous illustrations, examples, and end-chapter exercises

KÜNSTLICHE INTELLIGENZ

Walter de Gruyter GmbH & Co KG Unterschiedlichste Anwendungsformen künstlicher Intelligenz (KI) bestimmen schon heute den Alltag vieler Menschen – von Einsatz von KI-Systeme in Finanzgeschäften über die Vergabe von Studienplätzen bis hin zur Steuerung von Pflegerobotern, Autos und Waffensystemen. Diese vielfältigen neuen Möglichkeiten und Visionen wecken einerseits Hoffnungen auf persönlichen und gesellschaftlichen Nutzen und Fortschritt; andererseits rufen sie aber auch Bedenken, Ängste und gelegentlich auch grundsätzliche Ablehnung hervor. Angesichts dieser Ambivalenz sind ethische Analysen gefordert, die ausloten, wie ein verantwortungsvoller Umgang mit KI gestaltet werden sollte. Der Band greift viele dieser Probleme auf und unterzieht sie einer eingehenden philosophischen Analyse. Die Auseinandersetzung ist nach klassischen Teilbereichen der Philosophie gegliedert, aus deren Perspektive heraus jeweils spezielle Teilaspekte oder einzelne Anwendungsformen von KI beleuchtet werden. Das Themenspektrum reicht entsprechend von Fragen der Handlungstheorie und Philosophie des Geistes über wissenschaftstheoretische Problemstellungen bis hin zu ethischen Fragen die beispielsweise den Einsatz von KI in der Medizin und im Wirtschafts- und Arbeitsleben betreffen. In Auseinandersetzung mit aktuellen Debatten werden eigenständige Positionen entwickelt.

MODERN C++ PROGRAMMING COOKBOOK

Packt Publishing Ltd Over 100 recipes to help you overcome your difficulties with C++ programming and gain a deeper understanding of the working of modern C++ About This Book Explore the most important language and library features of C++17, including containers, algorithms, regular expressions, threads, and more, Get going with unit testing frameworks Boost.Test, Google Test and Catch, Extend your C++ knowledge and take your development skills to new heights by making your applications fast, robust, and scalable. Who This Book Is For If you want to overcome difficult phases of development with C++ and leverage its features using modern programming practices, then this book is for you. The book is designed for both experienced C++ programmers as well as people with strong knowledge of OOP concepts. What You Will Learn Get to know about the new core language features and the problems they were intended to solve Understand the standard support for threading and concurrency and know how to put them on work for daily basic tasks Leverage C++'s features to get increased robustness and performance Explore the widely-used testing frameworks for C++ and implement various useful patterns and idioms Work with various types of strings and look at the various aspects of compilation Explore functions and callable objects with a focus on modern features Leverage the standard library and work with containers, algorithms, and iterators Use regular expressions for find and replace string operations Take advantage of the new filesystem library to work with

files and directories Use the new utility additions to the standard library to solve common problems developers encounter including string_view, any , optional and variant types In Detail C++ is one of the most widely used programming languages. Fast, efficient, and flexible, it is used to solve many problems. The latest versions of C++ have seen programmers change the way they code, giving up on the old-fashioned C-style programming and adopting modern C++ instead. Beginning with the modern language features, each recipe addresses a specific problem, with a discussion that explains the solution and offers insight into how it works. You will learn major concepts about the core programming language as well as common tasks faced while building a wide variety of software. You will learn about concepts such as concurrency, performance, meta-programming, lambda expressions, regular expressions, testing, and many more in the form of recipes. These recipes will ensure you can make your applications robust and fast. By the end of the book, you will understand the newer aspects of C++11/14/17 and will be able to overcome tasks that are time-consuming or would break your stride while developing. Style and approach This book follows a recipe-based approach, with examples that will empower you to implement the core programming language features and explore the newer aspects of C++.

MACHINE LEARNING

HANDS-ON FOR DEVELOPERS AND TECHNICAL PROFESSIONALS

John Wiley & Sons Dig deep into the data with a hands-on guide to machine learning with updated examples and more! Machine Learning: Hands-On for Developers and Technical Professionals provides hands-on instruction and fully-coded working examples for the most common machine learning techniques used by developers and technical professionals. The book contains a breakdown of each ML variant, explaining how it works and how it is used within certain industries, allowing readers to incorporate the presented techniques into their own work as they follow along. A core tenant of machine learning is a strong focus on data preparation, and a full exploration of the various types of learning algorithms illustrates how the proper tools can help any developer extract information and insights from existing data. The book includes a full complement of Instructor's Materials to facilitate use in the classroom, making this resource useful for students and as a professional reference. At its core, machine learning is a mathematical, algorithm-based technology that forms the basis of historical data mining and modern big data science. Scientific analysis of big data requires a working knowledge of machine learning, which forms predictions based on known properties learned from training data. Machine Learning is an accessible, comprehensive guide for the non-mathematician, providing clear guidance that allows readers to: Learn the languages of machine learning including Hadoop, Mahout, and Weka Understand decision trees, Bayesian networks, and artificial neural networks Implement Association Rule, Real Time, and Batch learning Develop a strategic plan for safe, effective, and efficient machine learning By learning to construct a system that can learn from data, readers can increase their utility across industries. Machine learning sits at the core of deep dive data analysis and visualization, which is increasingly in demand as companies discover the goldmine hiding in their existing data. For the tech professional involved in data science, Machine Learning: Hands-On for Developers and Technical Professionals provides the skills and techniques required to dig deeper.

ARTIFICIAL INTELLIGENCE THROUGH PROLOG

THE ROUTLEDGE HANDBOOK OF THE ETHICS OF DISCRIMINATION

Routledge While it has many connections to other topics in normative and applied ethics, discrimination is a central subject in philosophy in its own right. It plays a significant role in relation to many real-life complaints about unjust treatment or unjust inequalities, and it raises a number of questions in political and moral philosophy, and in legal theory. Some of these questions include: what distinguishes the concept of discrimination from the concept of differential treatment? What distinguishes direct from indirect discrimination? Is discrimination always morally wrong? What makes discrimination wrong? How should we eliminate the effects of discrimination? By covering a wide range of topics, and by doing so in a way that does not assume prior acquaintance, this handbook enables the reader to get to grips with the omnipresent issue. The Routledge Handbook of the Ethics of Discrimination is an outstanding reference source to this exciting subject and the first collection of its kind. Comprising over thirty chapters by a team of international contributors the handbook is divided into six main parts: • conceptual issues • the wrongness of discrimination • groups of 'discriminatees' • sites of discrimination • causes and means • history of discrimination. Essential reading for students and researchers in applied ethics and political philosophy the handbook will also be very useful for those in related fields, such as law, sociology and politics.

MACHINE LEARNING PARADIGMS

ADVANCES IN DEEP LEARNING-BASED TECHNOLOGICAL APPLICATIONS

Springer Nature At the dawn of the 4th Industrial Revolution, the field of Deep Learning (a sub-field of Artificial Intelligence and Machine Learning) is growing continuously and rapidly, developing both theoretically and towards applications in increasingly many and diverse other disciplines. The book at hand aims at exposing its reader to some of the most significant recent advances in deep learning-based technological applications and consists of an editorial note and an additional fifteen (15) chapters. All chapters in the book were invited from authors who work in the corresponding chapter theme and are recognized for their significant research contributions. In more detail, the chapters in the book are organized into six parts, namely (1) Deep Learning in Sensing, (2) Deep Learning in Social Media and IOT, (3) Deep Learning in the Medical Field, (4) Deep Learning in Systems Control, (5) Deep Learning in Feature Vector Processing, and (6) Evaluation of Algorithm Performance. This research book is directed towards professors, researchers, scientists, engineers and students in computer science-related disciplines. It is also directed towards readers who come from other disciplines and are interested in becoming versed in some of the most recent deep learning-based technological applications. An extensive list of bibliographic references at the end of each chapter guides the readers to probe deeper into their application areas of interest.

TEACHING STATISTICS

A BAG OF TRICKS

OUP Oxford Students in the sciences, economics, psychology, social sciences, and medicine take introductory statistics. Statistics is increasingly offered at the high school level as well. However, statistics can be notoriously difficult to teach as it is seen by many students as difficult and boring, if not irrelevant to their subject of choice. To help dispel these misconceptions, Gelman and Nolan have put together this fascinating and thought-provoking book. Based on years of teaching experience the book provides a wealth of demonstrations, examples and projects that involve active student participation. Part I of the book presents a large selection of activities for introductory statistics courses and combines chapters such as, 'First week of class', with exercises to break the ice and get students talking; then 'Descriptive statistics' , collecting and displaying data; then follows the traditional topics - linear regression, data collection, probability and inference. Part II gives tips on what does and what doesn't work in class: how to set up effective demonstrations and examples, how to encourage students to participate in class and work effectively in group projects. A sample course plan is provided. Part III presents material for more advanced courses on topics such as decision theory, Bayesian statistics and sampling.