

A Brief Tutorial On Machine Vibration

The book proposes new technologies and discusses future solutions for design infrastructure for ICT. The book contains high quality submissions presented at Second International Conference on Information and Communication Technology for Sustainable Development (ICT4SD – 2016) held at Goa, India during 1 – 2 July, 2016. The conference stimulates the cutting-edge research discussions among many academic pioneering researchers, scientists, industrial engineers, and students from all around the world. The topics covered in this book also focus on innovative issues at international level by bringing together the experts from different countries.

The affective computing domain, born coined by Rosalind Picard in1997, gathers several scientific areas such as computer science,cognitive science, psychology, design and art. The humane-machineinteraction systems are no longer solely fast and efficient. Theyaim to offer to users affective experiences: user's affectivestate is detected and considered within the interaction; the systemdisplays affective state; it can reason about their implication toachieve a task or resolve a problem. In this book, we have chosento cover various domains of research in emotion-oriented systems.Our aim is also to highlight the importance to base thecomputational model on theoretical foundations and on natural data.

Providing a unique approach to machine learning, this text contains fresh and intuitive, yet rigorous, descriptions of all fundamental concepts necessary to conduct research, build products, tinker, and play. By prioritizing geometric intuition, algorithmic thinking, and practical real world applications in disciplines including computer vision, natural language processing, economics, neuroscience, recommender systems, physics, and biology, this text provides readers with both a lucid understanding of foundational material as well as the practical tools needed to solve real-world problems. With in-depth Python and MATLAB/OCTAVE-based computational exercises and a complete treatment of cutting edge numerical optimization techniques, this is an essential resource for students and an ideal reference for researchers and practitioners working in machine learning, computer science, electrical engineering, signal processing, and numerical optimization.

Theory of Computation -- Computation by Abstracts Devices.

Understanding and Interpreting Machine Learning in Medical Image Computing Applications

Second International Multi-Topic Conference, IMTIC 2012, Jamshoro, Pakistan, March 28–30, 2012. Proceedings
CNC Milling Machine and Router DIY For \$300

Biomedical Signal Processing and Artificial Intelligence in Healthcare

21st International Conference, SPECOM 2019, Istanbul, Turkey, August 20-25, 2019, Proceedings

Emerging Trends and Applications in Information Communication Technologies

October 10–13, 1995, Baltimore Convention Center, Baltimore, Maryland, Proceedings, Making Security Real

Leverage Scala and Machine Learning to study and construct systems that can learn from data About This Book Explore a broad variety of data processing, machine learning, and genetic algorithms through diagrams, mathematical formulation, and updated source code in Scala Take your expertise in Scala programming to the next level by creating and customizing AI applications Experiment with different techniques and evaluate their benefits and limitations using real-world applications in a tutorial style Who This Book Is For If you're a data scientist or a data analyst with a fundamental knowledge of Scala who wants to learn and implement various Machine learning techniques, this book is for you. All you need is a good understanding of the Scala programming language, a basic knowledge of statistics, a keen interest in Big Data processing, and this book! What You Will Learn Build dynamic workflows for scientific computing Leverage open source libraries to extract patterns from time series Write your own classification, clustering, or evolutionary algorithm Perform relative performance tuning and evaluation of Spark Master probabilistic models for sequential data Experiment with advanced techniques such as regularization and kernelization Dive into neural networks and some deep learning architecture Apply some basic multiarm-bandit algorithms Solve big data problems with Scala parallel collections, Akka actors, and Apache Spark clusters Apply key learning strategies to a technical analysis of financial markets In Detail The discovery of information through data clustering and classification is becoming a key differentiator for competitive organizations. Machine learning applications are everywhere, from self-driving cars, engineering design, logistics, manufacturing, and trading strategies, to detection of genetic anomalies. The book is your one stop guide that introduces you to the functional capabilities of the Scala programming language that are critical to the creation of machine learning algorithms such as dependency injection and implicits. You start by learning data preprocessing and filtering techniques. Following this, you'll move on to unsupervised learning techniques such as clustering and dimension reduction, followed by probabilistic graphical models such as Naive Bayes, hidden Markov models and Monte Carlo inference. Further, it covers the discriminative algorithms such as linear, logistic regression with regularization, kernelization, support vector machines, neural networks, and deep learning. You'll move on to evolutionary computing, multibandit algorithms, and reinforcement learning. Finally, the book includes a comprehensive overview of parallel computing in Scala and Akka followed by a description of Apache Spark and its ML library. With updated codes based on the latest version of Scala and comprehensive examples, this book will ensure that you have more than just a solid fundamental knowledge in machine learning with Scala. Style and approach This book is designed as a tutorial with hands-on exercises using technical analysis of financial markets and corporate data. The approach of each chapter is such that it allows you to understand key concepts easily.

This book constitutes the refereed joint proceedings of the First International Workshop on Machine Learning in Clinical Neuroimaging, MLCN 2018, the First International Workshop on Deep Learning Fails, DLF 2018, and the First International Workshop on Interpretability of Machine Intelligence in Medical Image Computing, IMIMIC 2018, held in conjunction with the 21st International Conference on Medical Imaging and Computer-Assisted Intervention, MICCAI 2018, in Granada, Spain, in September 2018. The 4 full MLCN papers, the 6 full DLF papers, and the 6 full IMIMIC papers included in this volume were carefully reviewed and selected. The MLCN contributions develop state-of-the-art machine learning methods such as spatio-temporal Gaussian process analysis, stochastic variational inference, and deep learning for applications in Alzheimer's disease diagnosis and multi-site neuroimaging data analysis; the DLF papers evaluate the strengths and weaknesses of DL and identify the main challenges in the current state of the art and future directions; the IMIMIC papers cover a large range of topics in the field of interpretability of machine learning in the context of medical image analysis.

Printed manual describing the complete steps in constructing an inexpensive CNC milling machine and router. Includes all diagrams, circuits, sources of parts, sources of free machine control software, sources for free graphics software, how to write g code and g code examples. Useful for metal working, woodworking, engraving, pattern making, sign making and three dimension art. Included is a tutorial on writing g code with examples. Printed upon order and promptly shipped. available as download and CD disc at <http://www.goodworksbooks.com>

Smart Sensor Networks (WSNs) using AI have left a mark on the lives of all by aiding in various sectors, such as manufacturing, education, healthcare, and monitoring of the environment and industries. This book covers recent AI applications and explores aspects of modern sensor technologies and the systems needed to operate them. The book reviews the fundamental concepts of gathering, processing, and analyzing different AI-based models and methods. It covers recent WSN techniques for the purpose of effective network management on par with the standards laid out by international organizations in related fields and focuses on both core concepts along with major applicational areas. The book will be used by technical developers, academicians, data sciences, industrial professionals, researchers, and students interested in the latest innovations on problem-oriented processing techniques in sensor networks using IoT and evolutionary computer applications for industry 4.0.

Algorithms and Technologies

9th International Conference, ATIS 2018, Nanning, China, November 9–11, 2018, Proceedings

Information and Communication Technology for Sustainable Development

Internet of Things from Hype to Reality

18th National Information Systems Security Conference

Speech and Computer

ICICT 2015, Volume 2

This book constitutes the proceedings of the 21st International Conference on Speech and Computer, SPECOM 2019, held in Istanbul, Turkey, in August 2019. The 57 papers presented were carefully reviewed and selected from 86 submissions. The papers present current research in the area of computer speech processing including audio signal processing, automatic speech recognition, speaker recognition, computational paralinguistics, speech synthesis, sign language and multimodal processing, and speech and language resources.

The three volume set LNCS 5551/5552/5553 constitutes the refereed proceedings of the 6th International Symposium on Neural Networks, ISNN 2009, held in Wuhan, China in May 2009. The 409 revised papers presented were carefully reviewed and selected from a total of 1,235 submissions. The papers are organized in 20 topical sections on theoretical analysis, stability, time-delay neural networks, machine learning, neural modeling, decision making systems, fuzzy systems and fuzzy neural networks, support vector machines and kernel methods, genetic algorithms, clustering and classification, pattern recognition, intelligent control, optimization, robotics, image processing, signal processing, biomedical applications, fault diagnosis, telecommunication, sensor network and transportation systems, as well as applications.

Introduction to Machine Learning with Applications in Information Security provides a class-tested introduction to a wide variety of machine learning algorithms, reinforced through realistic applications. The book is accessible and doesn't prove theorems, or otherwise dwell on mathematical theory. The goal is to present topics at an intuitive level, with just enough detail to clarify the underlying concepts. The book covers core machine learning topics in-depth, including Hidden Markov Models, Principal Component Analysis, Support Vector Machines, and Clustering. It also includes coverage of Nearest Neighbors, Neural Networks, Boosting and AdaBoost, Random Forests, Linear Discriminant Analysis, Vector Quantization, Naive Bayes, Regression Analysis, Conditional Random Fields, and Data Analysis. Most of the examples in the book are drawn from the field of information security, with many of the machine learning applications specifically focused on malware. The applications presented are designed to demystify machine learning techniques by providing straightforward scenarios. Many of the exercises in this book require some programming, and basic computing concepts are assumed in a few of the application sections. However, anyone with a modest amount of programming experience should have no trouble with this aspect of the book. Instructor resources, including PowerPoint slides, lecture videos, and other relevant material are provided on an accompanying website: <http://www.cs.sju.edu/~stamp/ML/>. For the reader's benefit, the figures in the book are also available in electronic form, and in color. About the Author Mark Stamp has been a Professor of Computer Science at San Jose State University since 2002. Prior to that, he worked at the National Security Agency (NSA) for seven years, and a Silicon Valley startup company for two years. He received his Ph.D. from Texas Tech University in 1992. His love affair with machine learning began in the early 1990s, when he was working at the NSA, and continues today at SJSU, where he has supervised vast numbers of master's student projects, most of which involve a combination of information security and machine learning.

This volume contains 69 papers presented at ICICT 2015: International Congress on Information and Communication Technology. The conference was held during 9th and 10th October, 2015, Udaipur, India and organized by CSI Udaipur Chapter, Division IV, SIG-WNS, SIG-Agriculture in association with ACM Udaipur Professional Chapter, The Institution of Engineers (India), Udaipur Local Centre and Mining Engineers Association of India, Rajasthan Udaipur Chapter. This volume contains papers mainly focused on ICT for Managerial Applications, E-governance, IOT and e-Mining.

Data processing, ML algorithms, smart analytics, and more

First International Workshops, MLCN 2018, DLF 2018, and IMIMIC 2018, Held in Conjunction with MICCAI 2018, Granada, Spain, September 16-20, 2018, Proceedings

Lattice Gas Methods

Machine Learning Refined

Web Technologies Research and Development - APWeb 2005

Foundations, Algorithms, and Applications

Throughput Optimization in Robotic Cells

The theme of the 1997 INTERACT conference, 'Discovering New Worlds offICI', signals major changes that are taking place with the expansion of new technologies into fresh areas of work and leisure throughout the world and new pervasive, powerful systems based on multimedia and the internet. HCI has a vital role to play in these new worlds, to ensure that people using the new technologies are empowered rather than subjugated to the technology that they increasingly have to use. In addition, outcomes from HCI research studies over the past 20 years are now finding their way into many organisations and helping to improve and enhance work practices. These factors have strongly influenced the INTERACT '97 Committee when creating the conference program, with the result that, besides the more traditional HCI research and education focus found in previous INTERACT conferences, one strand of the 1997 conference has been devoted to industry and another to multimedia. The growth in the IFIP TC13 committee itself reflects the expansion offICI into new worlds. Membership offIP TC13 has risen to now include representatives of 24 IFIP member country societies from many parts of the world. In 1997, IFIP TC13 breaks new ground by holding its sixth INTERACT conference in the Asia-Pacific region. This is a significant departure from previous INTERACT conferences, that were all held in Europe, and is especially important for the Asia-Pacific region, as HCI expands beyond its traditional base.

Computational biology is a rapidly expanding field, and the number and variety of computational methods used for DNA and protein sequence analysis is growing every day. These algorithms are extremely valuable to biotechnology companies and to researchers and teachers in universities. This book explains the latest computer technology for analyzing DNA, RNA, and protein sequences. Clear and easy to follow, designed specifically for the non-computer scientist, it will help biologists make better choices on which algorithm to use. New techniques and demonstrations are elucidated, as are state-of-the-art problems, and more advanced material on the latest algorithms. The primary audience for this volume are molecular biologists working either in biotechnology companies or academic research environments, individual researchers and the institutions they work for, and students. Any biologist who relies on computers should want this book. A secondary audience will be computer scientists developing techniques for analyzing biological data. An excellent resource for both students and computer scientists, it will also help introduce computer scientists to the biology problems. This is an outstanding work which will be ideal for the increasing number of scientists moving into computational biology.

This revised textbook presents updated material on its core content: an end-to-end IoT architecture that is comprised of devices, network, compute, storage, platform, applications along with management and security components. As with the second edition, it is organized into six main parts: an IoT reference model; fog computing and the drivers; IoT management and applications; smart services in IoT; IoT standards; and case studies. This editions features include overhaul of the IoT Protocols (Chapter 5) to include an expanded treatment of low-power wide area networks including narrow band IoT (NB-IoT) protocol, updated IoT platforms and capabilities (Chapter 7) to include comparison of commercially available platforms (e.g. AWS IoT Platform, Google Cloud IoT Platform, Microsoft Azure IoT Platform, and PTC ThinkWorx), updated security (Chapter 8) to include approaches for securing IoT devices with examples of IoT devices used in security attacks and associated solutions including MUD and DICE, and finally new Appendix B to include six IoT project detailed for students.

This book constitutes the refereed proceedings of the Third International Conference on Computer Vision/Computer Graphics collaboration techniques involving image analysis/synthesis approaches MIRAGE 2007, held in Rocquencourt, France, in March 2007. The 55 revised full cover foundational, methodological, and application issues.

Computer Vision/Computer Graphics Collaboration Techniques

Proceedings of the International Congress on Information and Communication Technology

Proceedings of ICT4SD 2016, Volume 1

A New Environment for Modeling

Report on Research at AFRL

Introduction to Machine Learning with Applications in Information Security

13th National Computer Security Conference

This book constitutes the proceedings of the International Conference on Cloud Computing and Security (ICCCS 2015) will be held on August 13-15, 2015 in Nanjing, China. The objective of ICCCS 2015 is to provide a forum for researchers, academicians, engineers, industrial professionals, students and government officials involved in the general areas of information security and cloud computing.

If you think that machine learning has become too broad and challenging to begin learning, then Machine Learning for Beginners is the book you have been waiting for. The extent of how extensive deep learning has become does not matter, but understanding the essentials initially provides the building blocks to ascertain your knowledge in machine learning. Everyone agrees that machine learning is a broad topic with several components; however, having a strong foundation of what it encompasses plays a crucial role in what it entails in general. However, machine learning uses a similar technique of how we think and conduct our daily lives with most of the activities controlled by the brain. When we adopt this concept, the chances are that you are likely to understand what machine learning, especially deep learning, is all about. That said, inside this book, you will find valuable information specifically designed to build your knowledge about machine learning. With the changing world, mostly into making, machines learn human behaviors, you do not wish to be left behind but move with the industry. Before venturing deeper into machine learning, the book highlights the fundamental concepts of machine learning. You should initially understand the basic components or rather the terms, central aspects of these machines and some of the types of machine learning algorithms. Besides, the book provides a brief tutorial of how machine learning techniques are conducted. More so, it is vital to understand the benefits of machine learning in real life to enhance your interest in this field of computing. As such, inside, you will find some of the applications of machine learning in different areas, especially in simplifying things and making technology more straightforward. Technology may become confusing with almost similar multidisciplinary elements of computing; the book, therefore, highlights the differences between machine learning, deep learning, data science, and cognitive computing, among others. You will also learn about some of the examples of deep learning and when to avoid the utilization of machine learning, especially when it is harmful or prone to cause destruction. With differentiated machine learning algorithm out there, you will have to learn about them all, as detailed in this book. Some may wonder how machines simulate human behaviors and other responses without being programmed, whereas others may think that machines imitation of how we react to events is made possible through magic.

This book: Machine Learning For Beginners, provides an answer to these questions and beliefs detailing how scientists have made this learning practical where it seemed impossible. Inside you will find definition of machine learning and its comparison to programming or code use when setting computer instructions. The basics of machine learning including the vocabularies used, components, and types of algorithms explanation of how machines learn and when to avoid using machine learning as a tool for solving problems Paradigms and algorithms of machine learning Similarities, differences, and relationships between data science, machine learning, deep learning, artificial learning, and cognitive computing Basic statistics and probability theory of machine learning Building blocks of machine learning and technical requirements of deep learning Applications of machine learning and how they improve our societies as well as some of the examples of deep learning in real life And more....

Throughput Optimization in Robotic Cells provides practitioners, researchers, and students with up-to-date algorithmic results on sequencing of robot moves and scheduling of parts in robotic cells. It brings together the structural results developed over the last 25 years for the various realistic models of robotic cells. This book is ideally suited for use in a graduate course or a research seminar on robotic cells.

This volume analyzes the social implications of computer interfaces.

Omni Shoreham Hotel, Washington, D.C. 1-4 October, 1990 : Proceedings : 'Information Systems Security, Standards - the Key to the Future'

Applications and New Opportunities

INTERACT '97

An Artificial Intelligence Approach

Cloud Computing and Security

Third International Conference on Computer Vision/Computer Graphics, MIRAGE 2007, Rocquencourt, France, March 28-30, 2007, Proceedings

Guide to Vulnerability Analysis for Computer Networks and Systems

Machine learning methods such as neural networks, non-linear dimensionality reduction techniques, random forests and others meet in this research topic with biomolecular simulations. The authors of eight articles applied these methods to analyze simulation results, accelerate simulations or to make molecular mechanics force fields more accurate.

This book constitutes the refereed proceedings of the 9th International Conference on Applications and Techniques in Information Security, ATIS 2018, held in Nanning, China, in November 2018. The 19 full papers were carefully reviewed and selected from 59 submissions. The papers are organized in the following topical sections: information security, information abuse prevention, security implementations, knowledge discovery, and applications.

This book constitutes the refereed proceedings of the 8th International Conference on Grid and Pervasive Computing, GPC 2016, held in Seoul, Korea, in May 2016. The 20 revised papers were carefully reviewed and selected from 94 submissions. The conference contains various aspects including green computing, cloud computing, virtualisation, data and storage, and network security.

This tutorial attempts to demystify one of the most important yet poorly understood aspects of logic programming, the Warren Abstract Machine or WAM. The author's step-by-step construction of the WAM adds features in a gradual manner, clarifying the complex aspects of the design and providing the first detailed study of WAM since it was designed in 1983.

Human-Computer Interaction

Machine Learning in Biomolecular Simulations

6th International Symposium on Neural Networks, ISNN 2009 Wuhan, China, May 26-29, 2009 Proceedings

A Tutorial Reconstruction

Omni Shoreham Hotel, Washington, D.C. 1-4 October, 1990 : Proceedings : Information Systems Security, Standards, the Key to the Future

Applications and Techniques in Information Security

Devices, Circuits and Applications

This book provides readers with up-to-date research of emerging cyber threats and defensive mechanisms, which are timely and essential. It covers cyber threat intelligence concepts against a range of threat actors and threat tools (i.e. ransomware) in cutting-edge technologies, i.e., Internet of Things (IoT), Cloud computing and mobile devices. This book also provides the technical information on cyber-threat detection methods required for the researcher and digital forensics experts, in order to build intelligent automated systems to fight against advanced cybercrimes. The ever increasing number of cyber-attacks requires the cyber security and forensic specialists to detect, analyze and defend against the cyber threats in almost real-time, and with such a large number of attacks is not possible without deeply perusing the attack features and taking corresponding intelligent defensive actions – this in essence defines cyber threat intelligence notion. However, such intelligence would not be possible without the aid of artificial intelligence, machine learning and advanced data mining techniques to collect, analyze, and interpret cyber-attack campaigns which is covered in this book. This book will focus on cutting-edge research from both academia and industry, with a particular emphasis on providing wide knowledge of the field, novelty of approaches, combination of tools and so forth to perceive reason, learn and act on a wide range of data collected from different cyber security and forensics solutions. This book introduces the notion of cyber threat intelligence and analytics and presents different attempts in utilizing machine learning and data mining techniques to create threat feeds for a range of consumers. Moreover, this book sheds light on existing and emerging trends in the field which could pave the way for future works. The inter-disciplinary nature of this book, makes it suitable for a wide range of audiences with backgrounds in artificial intelligence, cyber security, forensics, big data and data mining, distributed systems and computer networks. This would include industry professionals, advanced-level students and researchers that work within these related fields.

Over the last decade, significant progress has been made in 3D imaging research. As a result, 3D imaging methods and techniques are being employed for various applications, including 3D television, intelligent robotics, medical imaging, and stereovision. Depth Map and 3D Imaging Applications: Algorithms and Technologies present various 3D algorithms developed in the recent years and to investigate the application of 3D methods in various domains. Containing five sections, this book offers perspectives on 3D imaging algorithms, 3D shape recovery, stereoscopic vision and autostereoscopic vision, 3D vision for robotic applications, and 3D imaging applications. This book is an important resource for professionals, scientists, researchers, academics, and software engineers in image/video processing and computer vision.

Machine Learning RefinedFoundations, Algorithms, and ApplicationsCambridge University Press

This book contains problems in Electrical Machines & Power Systems (Problems with Solutions). I have used these and other problems in the class room for many years. In most of the solutions I have deliberately avoided giving theoretical explanations, because an average student should know the they well before attempting to solve any problem. However, in each chapter, I have provided a brief introduction related to the chapter so that students are made aware of the contents of the chapter before reading the problems and their solutions.

The introduction related to each chapter contains Objective type Questions and their answers. The introductions contains brief notes on the topics of the chapters and also include Indian Standards for testing and maintenance of substation, equipments, transformer, overhead lines, underground cables and materials.

Designing User Interfaces With a Data Science Approach

The Social and Interactional Dimensions of Human-Computer Interfaces

11th International Conference, GPC 2016, Xi'an, China, May 6-8, 2016. Proceedings

Scala for Machine Learning

Development and Analysis of the Software Implemented Fault-Tolerance (SIFT) Computer

Power Electronics Handbook

This book constitutes the refereed proceedings of the Second International Multi-topic Conference, IMTIC 2012, held in Jamshoro, Pakistan, in March 2012. The 51 revised full papers presented were carefully reviewed and selected from 205 submissions. The papers address topics from information communication technologies.

Data science has been playing a vital role in almost all major fields. Many researchers are interested in the development of IT applications, which are user-driven with a focus on issues. This can be addressed using data science. User-driven research and data science have gained much attention from many private, public, and government organizations and research institutions. Designing User Interfaces With a Data Science Approach promotes the inclusion of more diversified users for user-centered designs of applications across domains and analyzes user data with a data science approach for effective and user-friendly user interface designs. It introduces the foundations of advanced topics of human-computer interaction, particularly with user-centered designs and techniques. Covering topics such as artificial neural networks, natural dialog systems, and machine learning, this book is an essential resource for faculty, research scholars, industry professionals, students of higher education, mathematicians, data scientists, interaction designers, visual designers, software engineers, user experience researchers, accessibility engineers, cognitive system engineers, academicians, and libraries.

Power electronics, which is a rapidly growing area in terms of research and applications, uses modern electronics technology to convert electric power from one form to another, such as ac-dc, dc-dc, dc-ac, and ac-ac with a variable output magnitude and frequency. Power electronics has many applications in our every day life such as air-conditioners, electric cars, sub-way trains, motor drives, renewable energy sources and power supplies for computers. This book covers all aspects of switching devices, converter circuit topologies, control techniques, analytical methods and some examples of their applications. * 25% new content * Reorganized and revised into 8 sections comprising 43 chapters * Coverage of numerous applications, including uninterrupted power supplies and automotive electrical systems * New content in power generation and distribution, including solar power, fuel cells, wind turbines, and flexible transmission

This professional guide and reference examines the challenges of assessing security vulnerabilities in computing infrastructure. Various aspects of vulnerability assessment are covered in detail, including recent advancements in reducing the requirement for expert knowledge through novel applications of artificial intelligence. The work also offers a series of case studies on how to develop and perform vulnerability assessment techniques using start-of-the-art intelligent mechanisms. Topics and features: provides tutorial activities and thought-provoking questions in each chapter, together with numerous case studies; introduces the fundamentals of vulnerability assessment, and reviews the state of the art of research in this area; discusses vulnerability assessment frameworks, including frameworks for industrial control and cloud systems; examines a range of applications that make use of artificial intelligence to enhance the vulnerability assessment processes; presents visualisation techniques that can be used to assist the vulnerability assessment process. In addition to serving the needs of security practitioners and researchers, this accessible volume is also ideal for students and instructors seeking a primer on artificial intelligence for vulnerability assessment, or a supplementary text for courses on computer security, networking, and artificial intelligence.

Electrical Machines & Power Systems (Problems With Solutions)

7th Asia-Pacific Web Conference, Shanghai, China, March 29 - April 1, 2005, Proceedings

Machine Learning for Beginners

Implementations and Applications of Machine Learning

The Road to Digitization

Depth Map and 3D Imaging Applications: Algorithms and Technologies

Emotion-Oriented Systems

Biomedical Signal Processing and Artificial Intelligence in Healthcare is a new volume in the Developments in Biomedical Engineering and Bioelectronics series. This volume covers the basics of biomedical signal processing and artificial intelligence. It explains the role of machine learning in relation to processing biomedical signals and the applications in medicine and healthcare. The book provides background to statistical analysis in biomedical systems. Several types of biomedical signals are introduced and analyzed, including ECG and EEG signals. The role of Deep Learning, Neural Networks, and the implications of the expansion of artificial intelligence is covered. Biomedical images are also introduced and processed, including segmentation, classification, and detection. This book covers different aspects of signals, from the use of hardware and software, and making use of artificial intelligence in problem solving. Dr Zgallali's book has up to date coverage where readers can find the latest information, easily explained, with clear examples and illustrations.

The book includes examples on the application of signal and image processing employing artificial intelligence to Alzheimer, Parkinson, ADHD, autism, and sleep disorders, as well as ECG and EEG signals. Developments in Biomedical Engineering and Bioelectronics is a 10-volume series which covers recent developments, trends and advances in this field. Edited by leading academics in the field, and taking a multidisciplinary approach, this series is a forum for cutting-edge, contemporary review articles and contributions from key 'up-and-coming' academics across the full subject area. The series serves a wide audience of university faculty, researchers and students, as well as industry practitioners.

Coverage of the subject area and the latest advances and applications in biomedical signal processing and Artificial Intelligence. Contributions by recognized researchers and field leaders. On-line presentations, tutorials, application and algorithm examples.

This volume focuses on progress in applying the lattice gas approach to partial differential equations that arise in simulating the flow of fluids.Lattice gas methods are new parallel, high-resolution, high-efficiency techniques for solving partial differential equations. This volume focuses on progress in applying the lattice gas approach to partial differential equations that arise in simulating the flow of fluids. It introduces the lattice Boltzmann equation, a new direction in lattice gas research that considerably reduces fluctuations.The twenty-seven contributions explore the many available software options exploiting the fact that lattice gas methods are completely parallel, which produces significant gains in speed. Following an overview of work done in the past five years and a discussion of frontiers, the chapters describe viscosity modeling and hydrodynamic mode analyses, multiphase flows and porous media, reactions and diffusion, basic relations and long-time correlations, the lattice Boltzmann equation, computer hardware, and lattice gas applications.Gary

Doosan Infracore Research Center for Network Studies at LG-Elmas National Laboratory.

This book constitutes the refereed proceedings of the 7th Asia-Pacific Web Conference, APWeb 2005, held in Shanghai, China in March/April 2005. The 71 revised full papers and 22 revised short papers presented together with 6 keynote papers and 22 invited demo papers were carefully reviewed and selected from 420 submissions. The papers are organized in topical sections on classification and clustering, topic and concept discovery, text search and document generation, Web search, mobile computing and P2P, XML, integration and collaboration, data mining and analysis, Web browsing and navigation, spatial data, stream data processing, Web services, ontologies, change management,

personalization, performance and optimization, Web caching, data grids, multimedia, object recognition and information extraction, visualization and user interfaces, and delivery and networks.

This book provides step-by-step explanations of successful implementations and practical applications of machine learning. The book's GitHub page contains software codes to assist readers in adapting materials and methods for their own use. A wide variety of applications are discussed, including wireless mesh network and power systems optimization; computer vision; image and facial recognition; protein prediction; data mining; and data discovery. Numerous state-of-the-art machine learning techniques are employed (with detailed explanations), including biologically-inspired optimization (genetic and other evolutionary algorithms, swarm intelligence); Viola Jones face detection; Gaussian mixture modeling; support vector machines; deep convolutional neural networks with performance enhancement techniques (including network design, learning rate optimization, data augmentation, transfer learning); spiking neural networks and timing dependent plasticity; frequent itemset mining; binary classification; and dynamic programming. This book provides valuable information on effective, cutting-edge techniques, and approaches for students, researchers, practitioners, and teachers in the field of machine learning.

Theory, Applications, and Hardware

Green, Pervasive, and Cloud Computing

First International Conference, ICCCS 2015, Nanjing, China, August 13-15, 2015. Revised Selected Papers

Cyber Threat Intelligence

Warren's Abstract Machine

Computational Methods in Molecular Biology

Cellular Automata Machines