Big Data Publishing Challenges And Opportunities

Conquering Big Data with High Performance Computing
12th International Conference, DILS 2017, Luxembourg, Luxembourg, November 14-15, 2017, Proceedings
Proceeding of the International Conference on Computer Networks, Big Data and IoT (ICCBI - 2018)
Applications of Big Data and Business Analytics in Management
Next Generation Intelligence
Securing IoT and Big Data
Data-Driven Innovation Big Data for Growth and Well-Being
Real-Time Big Data Analytics
International Conference on Intelligent Data Communication Technologies and Internet of Things (ICICI) 2018
HPC, Big Data, and AI Convergence Towards Exascale
Library and Information Services for Bioinformatics Education and Research
Big Data Optimization: Recent Developments and Challenges
Large Scale and Big Data
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Top 10 Challenges of Big Data Analytics

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Conquering Big Data with High Performance Computing Springer
Large Scale and Big Data: Processing and Management provides readers with a central source of reference on the data management techniques currently available for large-scale data processing. Presenting chapters written by leading researchers, academics, and practitioners, it addresses the fundamental challenges associated with Big Data processing tools and techniques across a range of computing environments. The book begins by discussing the basic concepts and tools of large-scale Big Data processing and cloud computing. It also provides an overview of different programming models and cloud-based deployment models. The book's second section examines the usage of advanced Big Data processing techniques in different domains, including semantic web, graph processing, and stream processing. The third section discusses advanced topics of Big Data processing such as consistency management, privacy, and security. Supplying a comprehensive summary from both the research and applied perspectives, the book covers recent research discoveries and applications, making it an ideal reference for a wide range of audiences, including researchers and academics working on databases, data mining, and web scale data processing. After reading this book, you will gain a fundamental understanding of how to use Big Data-processing tools and techniques effectively across application domains. Coverage includes cloud data management architectures, big data analytics visualization, data management, analytics for vast amounts of unstructured data, clustering, classification, link analysis of big data, scalable data mining, and machine learning techniques.
12th International Conference, DILS 2017, Luxembourg, Luxembourg, November 14-15, 2017, Proceedings MIT Press
HCI Challenges and Privacy Preservation in Big Data SecurityIGI Global
Proceeding of the International Conference on Computer Networks, Big Data and IoT (ICCBI - 2018) Royal Society of Chemistry
Design, process, and analyze large sets of complex data in real time About This Book Get acquainted with transformations and database-level interactions, and ensure the reliability of messages processed using Storm Implement strategies to solve the challenges of real-time data

processing Load datasets, build queries, and make recommendations using Spark SQL Who This Book Is For If you are a Big Data architect, developer, or a programmer who wants to develop applications/frameworks to implement real-time analytics using open source technologies, then this book is for you. What You Will Learn Explore big data technologies and frameworks Work through practical challenges and use cases of real-time analytics versus batch analytics Develop real-word use cases for processing and analyzing data in real-time using the programming paradigm of Apache Storm Handle and process real-time transactional data Optimize and tune Apache Storm for varied workloads and production deployments Process and stream data with Amazon Kinesis and Elastic MapReduce Perform interactive and exploratory data analytics using Spark SQL Develop common enterprise architectures/applications for real-time and batch analytics In Detail Enterprise has been striving hard to deal with the challenges of data arriving in real time or near real time. Although there are technologies such as Storm and Spark (and many more) that solve the challenges of real-time data, using the appropriate technology/framework for the right business use case is the key to success. This book provides you with the skills required to quickly design, implement and deploy your real-time analytics using real-world examples of big data use cases. From the beginning of the book, we will cover the basics of varied real-time data processing frameworks and technologies. We will discuss and explain the differences between batch and real-time processing in detail, and will also explore the techniques and programming concepts using Apache Storm. Moving on, we'll familiarize you with “Amazon Kinesis” for real-time data processing on cloud. We will further develop your understanding of real-time analytics through a comprehensive review of Apache Spark along with the high-level architecture and the building blocks of a Spark program. You will learn how to transform your data, get an output from transformations, and persist your results using Spark RDDs, using an interface called Spark SQL to work with Spark. At the end of this book, we will introduce Spark Streaming, the streaming library of Spark, and will walk you through the emerging Lambda Architecture (LA), which provides a hybrid platform for big data processing by combining real-time and precomputed batch data to provide a near real-time view of incoming data. Style and approach This step-by-step is an easy-to-follow, detailed tutorial, filled with practical examples of basic and advanced features. Each topic is explained sequentially and supported by real-world examples and executable code snippets.

Applications of Big Data and Business Analytics in Management CRC Press

The rate at which toxicological data is generated is continually becoming more rapid and the volume of data generated is growing dramatically. This is due in part to advances in software solutions and cheminformatics approaches which increase the availability of open data from chemical, biological and toxicological and high throughput screening resources. However, the amplified pace and capacity of data generation achieved by these novel techniques presents challenges for organising and analysing data output. Big Data in Predictive Toxicology discusses these challenges as well as the opportunities of new techniques encountered in data science. It addresses the nature of toxicological big data, their storage, analysis and interpretation. It also details how these data can be applied in toxicity prediction, modelling and risk assessment. This title is of particular relevance to researchers and postgraduates working and studying in the fields of computational methods, applied and physical chemistry, cheminformatics, biological sciences, predictive toxicology and safety and hazard assessment.

Next Generation Intelligence MIT Press

The delivery and availability of information resources is a vital concern to professionals across multiple fields. This is particularly vital to data intensive professions, where easy accessibility to high-quality information is a crucial component of their research. Library and Information Services for Bioinformatics Education and Research is an authoritative reference source for the latest scholarly material on the role of libraries for the effective delivery of information resources to optimize the study of biological data. Highlighting innovative perspectives across a range of topics, such as user assessment, collection development, and information accessibility, this publication is ideally designed for professionals, managers, computer scientists, graduate students, and practitioners actively involved in the field of bioinformatics.

Securing IoT and Big Data Cambridge University Press

This book discusses data communication and computer networking, communication technologies and the applications of IoT (Internet of Things), big data, cloud computing and healthcare informatics. It explores, examines and critiques intelligent data communications and presents inventive methodologies in communication technologies and IoT. Aimed at researchers and academicians who need to understand the importance of data communication and advanced technologies in IoT, it offers different perspectives to help readers increase their knowledge and motivates them to conduct research in the area, highlighting various innovative ideas for future research.

Data-Driven Innovation Big Data for Growth and Well-Being Springer

With the immense amount of data that is now available online, security concerns have been an issue from the start, and have grown as new technologies are increasingly integrated in data collection, storage, and transmission. Online cyber threats, cyber terrorism, hacking, and other cybercrimes have begun to take advantage of this information that can be easily accessed if not properly handled. New privacy and security measures have been developed to address this cause for concern and have become an essential area of research within the past few years and into the foreseeable future. The ways in which data is secured and privatized should be discussed in terms of the technologies being used, the methods and models for security that have been developed, and the ways in which risks can be detected, analyzed, and mitigated. The Research Anthology on Privatizing and Securing Data reveals the latest tools and technologies for privatizing and securing data across different technologies and industries. It takes a deeper dive into both risk detection and mitigation, including an analysis of cybercrimes and cyber threats, along with a sharper focus on the technologies and methods being actively implemented and utilized to secure data online. Highlighted topics include information governance and privacy, cybersecurity, data protection, challenges in big data, security threats, and more. This book is essential for data analysts, cybersecurity professionals, data scientists, security analysts, IT specialists, practitioners, researchers, academicians, and students interested in the latest trends and technologies for privatizing and securing data.

Real-Time Big Data Analytics Nova Science Publishers

This revelatory exploration of big data, which refers to our newfound ability to crunch vast amounts of information, analyze it instantly and draw profound and surprising conclusions from it, discusses how it will change our lives and what we can do to protect ourselves from its hazards. 75,000 first printing.

International Conference on Intelligent Data Communication Technologies and Internet of Things (ICICI) 2018 Springer
Applications of Big Data and Business Analytics in Management uses advanced analytic tools to explore the solutions to problems in society, environment and industry. The chapters within bring together researchers, engineers and practitioners, encompassing a wide and diverse set of topics in almost every field.
HPC, Big Data, and AI Convergence Towards Exascale MIT Press
Big Data in Psychiatry and Neurology provides an up-to-date overview of achievements in the field of big data in Psychiatry and Medicine, including applications of big data methods to aging disorders (e.g., Alzheimer's disease and Parkinson's disease), mood disorders (e.g., major depressive disorder), and drug addiction. This book will help researchers, students and clinicians implement new methods for collecting big datasets from various patient populations. Further, it will demonstrate how to use several algorithms and machine learning methods to analyze big datasets, thus providing individualized treatment for psychiatric and neurological patients. As big data analytics is gaining traction in psychiatric research, it is an essential component in providing predictive models for both clinical practice and public health systems. As compared with traditional statistical methods that provide primarily average group-level results, big data analytics allows predictions and stratification of clinical outcomes at an individual subject level. Discusses longitudinal big data and risk factors surrounding the development of psychiatric disorders Analyzes methods in using big data to treat psychiatric and neurological disorders Describes the role machine learning can play in the analysis of big data Demonstrates the various methods of gathering big data in medicine Reviews how to apply big data to genetics
Library and Information Services for Bioinformatics Education and Research Packt Publishing Ltd
"Big Data Analytics is a field that dissects, efficiently extricates data from, or in any case manages informational indexes that are excessively huge or complex to be managed by customary information preparing application programming. Information with numerous cases (lines) offers more noteworthy factual force, while information with higher multifaceted nature may prompt a higher bogus disclosure rate. Enormous information challenges incorporate catching information, information stockpiling, information investigation, search, sharing, move, representation, and questioning, refreshing, data security and data source. Large information was initially connected with three key ideas: volume, variety and velocity. Consequently, huge information regularly incorporates information with sizes that surpass the limit of conventional programming to measure inside a satisfactory time and worth. Current utilization of the term enormous information will in general allude to the utilization of predictive analytics, user behavior analytics, or certain other progressed information investigation techniques that concentrate an incentive from information, and sometimes to a specific size of informational index. There is little uncertainty that the amounts of information now accessible are undoubtedly enormous, however that is not the most important quality of this new information biological system. Investigation of informational indexes can discover new relationships to spot business patterns or models. Researchers, business persons, clinical specialists, promoting and governments consistently meet challenges with huge informational collections in territories including Internet look, fintech, metropolitan informatics, and business informatics. Researchers experience constraints in e-Science work, including meteorology, genomics, connectomics, complex material science reproductions, science and ecological exploration. The main objective of this book is to write about issues, challenges, opportunities, and solutions in novel research projects about big data in various domains. The topics of interest include, but are not limited to: efficient storage, management and sharing large scale of data; novel approaches for analyzing data using big data technologies; implementation of high performance and/or scalable and/or real-time computation algorithms for analyzing big data; usage of various data sources like historical data, social networking media, machine data and crowd-sourcing data; using machine learning, visual analytics, data mining, spatio-temporal data analysis and statistical inference in different domains (with large scale datasets); Legal and ethical issues and solutions for using, sharing and publishing large datasets; and the results of data analytics, security and privacy issues"--
Big Data Optimization: Recent Developments and Challenges Springer
The main objective of this book is to provide the necessary background to work with big data by introducing some novel optimization algorithms and codes capable of working in the big data setting as well as introducing some applications in big data optimization for both academics and practitioners interested, and to benefit society, industry, academia, and government. Presenting applications in a variety of industries, this book will be useful for the researchers aiming to analyses large scale data. Several optimization algorithms for big data including convergent parallel algorithms, limited memory bundle algorithm, diagonal bundle method, convergent parallel algorithms, network analytics, and many more have been explored in this book.
Large Scale and Big Data IGI Global
Privacy protection within large databases can be a challenge. By examining the current problems and challenges this domain is facing, more efficient strategies can be established to safeguard personal information against invasive pressures. HCI Challenges and Privacy Preservation in Big Data Security is an informative scholarly publication that discusses how human-computer interaction impacts privacy and security in almost all sectors of modern life. Featuring relevant topics such as large scale security data, threat detection, big data encryption, and identity management, this reference source is ideal for academicians, researchers, advanced-level students, and engineers that are interested in staying current on the advancements and drawbacks of human-computer interaction within the world of big data.
Big Data Processing Using Spark in Cloud IGI Global
The first book to present the common mathematical foundations of big data analysis across a range of applications and technologies. Today, the volume, velocity, and variety of data are increasing rapidly across a range of fields, including Internet search, healthcare, finance, social media, wireless devices, and cybersecurity. Indeed, these data are growing at a rate beyond our capacity to analyze them. The tools—including spreadsheets, databases, matrices, and graphs—developed to address this challenge all reflect the need to store and operate on data as whole sets rather than as individual elements. This book presents the common mathematical foundations of these data sets that apply across many applications and technologies. Associative arrays unify and simplify data, allowing readers to look past the differences among the various tools and leverage their mathematical similarities in order to solve the hardest big data challenges. The book first introduces the concept of the associative array in practical terms, presents the

associative array manipulation system D4M (Dynamic Distributed Dimensional Data Model), and describes the application of associative arrays to graph analysis and machine learning. It provides a mathematically rigorous definition of associative arrays and describes the properties of associative arrays that arise from this definition. Finally, the book shows how concepts of linearity can be extended to encompass associative arrays. Mathematics of Big Data can be used as a textbook or reference by engineers, scientists, mathematicians, computer scientists, and software engineers who analyze big data.
Proceedings of ICDIS 2019 HCI Challenges and Privacy Preservation in Big Data Security
This report improves the evidence base on the role of Data Driven Innovation for promoting growth and well-being, and provide policy guidance on how to maximise the benefits of DDI and mitigate the associated economic and societal risks.
Springer
Big Data in Radiation Oncology gives readers an in-depth look into how big data is having an impact on the clinical care of cancer patients. While basic principles and key analytical and processing techniques are introduced in the early chapters, the rest of the book turns to clinical applications, in particular for cancer registries, informatics, radiomics, radiogenomics, patient safety and quality of care, patient-reported outcomes, comparative effectiveness, treatment planning, and clinical decision-making. More features of the book are: Offers the first focused treatment of the role of big data in the clinic and its impact on radiation therapy. Covers applications in cancer registry, radiomics, patient safety, quality of care, treatment planning, decision making, and other key areas. Discusses the fundamental principles and techniques for processing and analysis of big data. Address the use of big data in cancer prevention, detection, prognosis, and management. Provides practical guidance on implementation for clinicians and other stakeholders. Dr. Jun Deng is a professor at the Department of Therapeutic Radiology of Yale University School of Medicine and an ABR board certified medical physicist at Yale-New Haven Hospital. He has received numerous honors and awards such as Fellow of Institute of Physics in 2004, AAPM Medical Physics Travel Grant in 2008, ASTRO IGRT Symposium Travel Grant in 2009, AAPM-IPEM Medical Physics Travel Grant in 2011, and Fellow of AAPM in 2013. Lei Xing, Ph.D., is the Jacob Haimson Professor of Medical Physics and Director of Medical Physics Division of Radiation Oncology Department at Stanford University. His research has been focused on inverse treatment planning, tomographic image reconstruction, CT, optical and PET imaging instrumentations, image guided interventions, nanomedicine, and applications of molecular imaging in radiation oncology. Dr. Xing is on the editorial boards of a number of journals in radiation physics and medical imaging, and is recipient of numerous awards, including the American Cancer Society Research Scholar Award, The Whitaker Foundation Grant Award, and a Max Planck Institute Fellowship.
How 45 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results Morgan Kaufmann
This book presents the thoroughly refereed and revised post-workshop proceedings of the 19th Monterey Workshop, held in Beijing, China, in Ocotber 2016. The workshop explored the challenges associated with the Development, Operation and Management of Large-Scale complex IT Systems. The 18 revised full papers presented were significantly extended and improved by the insights gained from the productive and lively discussions at the workshop, and the feedback from the post-workshop peer reviews. 2016 marks the 23rd anniversary for the Monterey Workshop series which started in 1993. For nearly a quarter of century, the Monterey Workshops have established themselves as an important international forum to foster, among academia, industry, and government agencies, discussion and exchange of ideas, research results and experience in developing software intensive systems, and have significantly advanced the field. The community of the workshop participants has grown to become an influential source of ideas and innovations and its impact on the knowledge economy has been felt worldwide.
Big Data Analytics Springer
This collection explores the relevance of global trade law for data, big data and cross-border data flows. Contributing authors from different disciplines including law, economics and political science analyze developments at the World Trade Organization and in preferential trade venues by asking what future-oriented models for data governance are available and viable in the area of trade law and policy. The collection paints the broad picture of the interaction between digital technologies and trade regulation as well as provides in-depth analyses of critical to the data-driven economy issues, such as privacy and AI, and different countries' perspectives. This title is also available as Open Access on Cambridge Core.
Challenges and Opportunities Springer
The business ecosystem within Asia is undergoing a transformation post COVID-19. Green issues, inclusion, and strategic disruptors in companies and economies have become rising topics in Asian businesses, causing such a change. This has the potential to be an evolution for Asian businesses, creating new business models for economic growth in Asia. The Handbook of Research on Big Data, Green Growth, and Technology Disruption in Asian Companies and Societies presents a rich collection of chapters exploring and discussing the emerging topics, challenges, and success factors in business, big data, innovation, and technology in Asia. This book will explore the changes made in the transition towards greener and sustainable societies and economies. Covering topics including information technologies, open innovation, and green issues, this book is essential for researchers, academicians, students, politicians, policymakers, corporate heads of firms, senior general managers, managing directors, information technology directors and managers, and libraries.
Principles and Paradigms Springer Nature
This book constitutes the proceedings of the 12th International Conference on Data Integration in the Life Sciences, DILS 2017, held in Luxembourg, in November 2017. The 5 full papers and 5 short papers presented in this volume were carefully reviewed and selected from 16 submissions. They cover topics such as: life science data modelling; analysing, indexing, and querying life sciences datasets; annotating, matching, and sharing life sciences datasets; privacy and provenance of life sciences datasets.