Homework 1 Rdf Lehigh Cse

Networking doesn't have to feel like a sales-focused event where you're using people to get ahead. Create meaningful connections, easily strike up genuine conversations, and dazzle people with your natural charm. In Confident Introvert, Stephanie Thoma shows you the key steps you'll need to take to unlock your potential and win at networking. Within these pages, you'll discover strategies that go beyond collecting business cards to find your natural confidence and connect with anyone.

This book provides a comprehensive and accessible introduction to knowledge graphs, which have recently garnered notable attention from both industry and academia. Knowledge graphs are founded on the principle of applying a graph-based abstraction to data, and are now broadly deployed in scenarios that require integrating and extracting value from multiple, diverse sources of data at large scale. The book defines knowledge graphs and provides a high-level overview of how they are used. It presents and contrasts popular graph models that are commonly used to represent data as graphs, and the languages by which they can be queried before describing how the resulting data graph can be enhanced with notions of schema, identity, and context. The book discusses how ontologies and rules can be used to encode knowledge as well as how inductive techniques—based on statistics, graph analytics, machine learning, etc.—can be used to encode and extract knowledge. It covers techniques for the creation, enrichment, assessment, and refinement of knowledge graphs and surveys recent open and enterprise knowledge graphs and the industries or applications within which they have been most widely adopted. The book closes by discussing the current limitations and future directions along which knowledge graphs are likely to evolve. This book is aimed at students, researchers, and practitioners who wish to learn more about knowledge graphs and how they facilitate extracting value from diverse data at large scale. To make the book accessible for newcomers, running examples and graphical notation are used throughout. Formal definitions and extensive references are also provided for those who opt to delve more deeply into specific topics.

Ontologies tend to be found everywhere. They are viewed as the silver bullet for many applications, such as database integration, peer-to-peer systems, e-commerce, semantic web services, or social networks. However, in open or evolving systems, such as the semantic web, different parties would, in general, adopt different ontologies. Thus, merely using ontologies, like using XML, does not reduce heterogeneity: it just raises heterogeneity problems to a higher level. Euzenat and Shvaiko's book is devoted to ontology matching as a solution to the semantic heterogeneity problem faced by computer systems. Ontology matching aims at finding correspondences between semantically related entities of different ontologies. These correspondences may stand for equivalence as well as other relations, such as consequence, subsumption, or disjointness, between ontology entities. Many different matching solutions have been proposed so far from various viewpoints, e.g., databases, information systems, and artificial intelligence. The second edition of Ontology Matching has been thoroughly revised and updated to reflect the most recent advances in this quickly developing area, which resulted in more than 150 pages of new content. In particular, the book includes a new chapter dedicated to the methodology for performing ontology matching. It also covers emerging topics, such as data interlinking, ontology partitioning and pruning, context-based matching, matcher tuning, alignment debugging, and user involvement in matching, to mention a few. More than 100 state-of-the-art matching systems and frameworks were reviewed. With Ontology Matching, researchers and practitioners will find a reference book that presents currently available work in a uniform framework. In particular, the work and the techniques presented in this book can be equally applied to database schema matching, catalog integration, XML schema matching and other related problems. The objectives of the book include presenting (i) the state of the art and (ii) the latest research results in ontology matching by providing a systematic and detailed account of matching techniques and matching systems from theoretical, practical and application perspectives.

Ontologies have been developed and investigated for quite a while now in artificial intelligence and natural language processing to facilitate knowledge sharing and reuse. More recently, the notion of ontologies has attracted attention from fields such as intelligent information integration, cooperative information systems, information retrieval, electronic commerce, and knowledge management. The author systematically introduces the notion of ontologies to the non-expert reader and demonstrates in detail how to apply this conceptual framework for improved intranet retrieval of corporate information and knowledge and for enhanced Internet-based electronic commerce. In the second part of the book, the author presents a more technical view on emerging Web standards, like XML, RDF, XSL-T, or XQL, allowing for structural and semantic modeling and description of data and information.

RDF and Linked Data have broad applicability across many fields, from aircraft manufacturing to zoology. Requirements for detecting bad data differ across communities, fields, and tasks, but nearly all involve some form of data validation. This book introduces data validation and describes its practical use in day-to-day data exchange. The Semantic Web offers a bold, new take on how to organize, distribute, index, and share data. Using Web addresses (URIs) as identifiers for data elements enables the construction of distributed databases on a global scale. Like the Web, the Semantic Web is heralded as an information revolution, and also like the Web, it is encumbered by data quality issues. The quality of Semantic Web data is compromised by the lack of resources for data curation, for maintenance, and for developing globally applicable data models. At the enterprise scale, these problems have conventional solutions. Master data management provides an enterprise-wide vocabulary, while constraint languages capture and enforce data structures. Filling a need long recognized by Semantic Web users, shapes languages provide models and vocabularies for expressing such structural constraints. This book describes two technologies for RDF validation: Shape Expressions (ShEx) and Shapes Constraint Language (SHACL), the rationales for their designs, a comparison of the two, and some example applications.

Foundations and Query Execution

Knowledge Graphs

Linked Open Data -- Creating Knowledge Out of Interlinked Data

Validating RDF Data

7th International Provenance and Annotation Workshop, IPAW 2018, London, UK, July 9-10, 2018, Proceedings

Advances in Conceptual Modeling. Recent Developments and New Directions

*Is the Enterprise Information Portal (EIP) knowledge management's killer app? Leading expert Joseph M. Firestone, the first author to formulate the idea of the Enterprise Knowledge Portal, breaks new ground and looks to the future with a practical, but comprehensive approach to enterprise portals and their relationship to knowledge management. Providing a clear and novel overview, Firestone tackles a wide range of topics ranging from functional EIP applications, estimating costs and benefits of EIPs, variations in EIP technical architecture, the role of intelligent agents, the nature of knowledge management, portal product/solution segmentation, portal product case studies, to the future of the EIP space. 'Enterprise Information Portals and Knowledge Management' is the book on portals you've been waiting for. It is the only book that thoroughly considers, explores, and analyzes: * The EIP orientation, outlook and evolution * A new methodology for estimating EIP benefits and costs * EIP and Enterprise Knowledge Portals (EKP) architecture * The approaching role of software agents in EIPs and EKPs * The current and future contribution of EIP and EKP solutions to Knowledge Management * The role of XML in portal architecture * A comprehensive, multi-dimensional, and forward-looking segmentation of EIP products accompanied by portal product case studies * Where EIP sector companies are headed and the pathways they will follow to get there*

A new edition of the widely used guide to the key ideas, languages, and technologies of the Semantic Web The development of the Semantic Web, with machine-readable content, has the potential to revolutionize the World Wide Web and its uses. A Semantic Web Primer provides an introduction and guide to this continuously evolving field, describing its key ideas, languages, and technologies. Suitable for use as a textbook or for independent study by professionals, it concentrates on undergraduate-level fundamental concepts and techniques that will enable readers to proceed with building applications on their own and includes exercises, project descriptions, and annotated references to relevant online materials. The third edition of this widely used text has been thoroughly updated, with significant new material that reflects a rapidly developing field. Treatment of the different languages (OWL2, rules) expands the coverage of RDF and OWL, defining the data model independently of XML and including coverage of N3/Turtle and RDFa. A chapter is devoted to OWL2, the new W3C standard. This edition also features additional coverage of the query language SPARQL, the rule language RIF and the possibility of interaction between rules and ontology languages and applications. The chapter on Semantic Web applications reflects the rapid developments of the past few years. A new chapter offers ideas for term projects. Additional material, including updates on the technological trends and research directions, can be found at http://www.semanticwebprimer.org.

This volume LNCS 12925 constitutes the papers of the 23rd International Conference on Big Data Analytics and Knowledge Discovery, held in September 2021. Due to COVID-19 pandemic it was held virtually. The 12 full papers presented together with 15 short papers in this volume were carefully reviewed and selected from a total of 71 submissions. The papers reflect a wide range of topics in the field of data integration, data warehousing, data analytics, and recently big data analytics, in a broad sense. The main objectives of this event are to explore, disseminate, and exchange knowledge in these fields.

This book focuses on recent developments in representational and processing aspects of complex data-intensive applications. Until recently, information systems have been designed around different business functions, such as accounts payable and inventory control. Object-oriented modeling, in contrast, structures systems around the data--the objects--that make up the various business functions. Because information about a particular function is limited to one place--to the object--the system is shielded from the effects of change. Object-oriented modeling also promotes better understanding of requirements, clear designs, and more easily maintainable systems. This book focuses on recent developments in representational and processing aspects of complex data-intensive applications. The chapters cover "hot" topics such as application behavior and consistency, reverse engineering, interoperability and collaboration between objects, and work-flow modeling. Each chapter contains a review of its subject, followed by object-oriented modeling techniques and methodologies that can be applied to real-life applications. Contributors F. Casati, S. Ceri, R. Cicchetti, L. M. L. Delcambre, E. F. Ecklund, D. W. Embley, G. Engels, J. M. Gagnon, R. Godin, M. Gogolla, L. Groenewegen, G. S. Jensen, G. Kappel, B. J. Krämer, S. W. Liddle, R. Missaoui, M. Norrie, M. P. Papazoglou, C. Parent, B. Perniei, P. Poncelet, G. Pozzi, M. Schreft, R. T. Snodgrass, S. Spaccapietra, M. Stumptner, M. Teisseire, W. J. van den Heuevel, S. N. Woodfield

This book answers the question of whether we can apply evolutionary theories to our understanding of the development of social structures. Social networks have increasingly become the focus of many social scientists as a way of analyzing these social structures. While many powerful network analytic tools have been developed and applied to a wide range of empirical phenomena, understanding the evolution of social organization still requires theories and analyses of social network evolutionary processes. Researchers from a variety of disciplines have combined their efforts in what is an indication of some very promising future research and the work represented in this volume provides a basis for a sustained analysis of the evolution of social life.

21st International Conference, DaWaK 2019, Linz, Austria, August 26–29, 2019, Proceedings

Case-Based Reasoning Research and Development

13th East European Conference, ADBIS 2009, Riga, Latvia, September 7-10, 2009, Proceedings

International Conference, ICAC3 2011, Mumbai, India, January 28-29, 2011. Proceedings

A Silver Bullet for Knowledge Management and Electronic Commerce

5th International Conference, ICWE 2005, Sydney, Australia, July 27-29, 2005, Proceedings

Next Generation of Data Mining

This book constitutes the refereed proceedings of the 7th International Conference on Knowledge Engineering and the Semantic Web, KESW 2016, held in Prague, Czech Republic, in September 2016.The 17 revised full papers presented together with 9 short papers were carefully reviewed and selected from 53 submissions. The papers are organized in topical sections on ontologies; information and knowledge extraction; data management; applications.

This book constitutes the refereed proceedings of the Second International Semantic Web Conference, ISWC 2003, held at Sanibel Island, Florida, USA in October 2003. The 58 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers are organized in topical sections on foundations; ontological reasoning; semantic Web services; security, trust, and privacy; agents and the semantic Web; information retrieval; multimedia; tools and methodologies; applications; and industrial perspectives.

Franco's "Design with Operational Amplifiers and Analog Integrated Circuits, 4e" combines theory with real-life applications to deliver a straightforward look at analog design principles and techniques. An emphasis on the physical picture helps the student develop the intuition and practical insight that are the keys to making sound design decisions.is The book is intended for a design-oriented course in applications with operational amplifiers and analog ICs. It also serves as a comprehensive reference for practicing engineers. This new edition includes enhanced pedagogy (additional problems, more in-depth coverage of negative feedback, more effective layout), updated technology (current-feedback and folded-cascode amplifiers, and low-voltage amplifiers), and increased topical coverage (current-feedback amplifiers, switching regulators and phase-locked loops).

"This book is a central reference source for different data management techniques for graph data structures and their applications, discussing graphs for modeling complex structured and schemaless data from the Semantic Web, social networks, protein networks, chemical compounds, and multimedia databases"--Provided by publisher.

This book constitutes the refereed proceedings of the Third Knowledge Technology Week, KTW 2011, held in Kajang, Malaysia, in July 2011. The 29 revised full papers presented together with 9 short papers were carefully reviewed and selected from 105 submissions. KTW 2011 consisted of a number of co-located events. This volume contains selected papers from the proceedings of the Third Malaysian Joint Conference on Artificial Intelligence (MJCAI 2011), the Third Semantic Technology and Knowledge Engineering (STAKE 2011), and the International Workshop on Semantic Agents (IWSA 2012).

Design with Operational Amplifiers and Analog Integrated Circuits

The Semantic Web - ISWC 2003

Encyclopedia of Big Data Technologies

Advances in Databases and Information Systems

Results of the LOD2 Project

Third Knowledge Technology Week, KTW 2011, Kajang, Malaysia, July 18-22, 2011. Revised Selected Papers

First Asian Semantic Web Conference, Beijing, China, September 3-7, 2006, Proceedings

Over the last few years Web Engineering has begun to gain mainstream acc- tance within the software engineering, IT and related disciplines. In particular, both researchers and practitioners are increasingly recognizing the unique c- racteristics of Web systems, and what these characteristicsimply in terms of the approaches we take to Web systems development and deployment in practice. A scan of the publications in related conference proceedings and journals highlights the diversity of the discipline areas which contribute to both the ri- ness and the complexity of Web Engineering. The 5th International Conference on Web Engineering (ICWE2005), held in Sydney, Australia, extends the traditions established by the earlier conferences in the series: ICWE2004 in Munich, Germany; ICWE2003 in Oviedo, Spain; ICWE2002 in Santa Fe, Argentina; and ICWE2001 in Caceres,´ Spain. Not only have these conferences helped disseminate cutting edge research within the ?eld of Web Engineering, but they have also helped de?ne and shape the discipline itself.TheprogramwehaveputtogetherforICWE2005continuesthisevolution. Indeed, we can now begin to see the maturing of the ?eld. For possibly the ?rst time, there was very little debate within the Program Committee about which papers were in and out of scope, and much more debate as to the each papers contributions to the ?eld.

Linked Open Data (LOD) is a pragmatic approach for realizing the Semantic Web vision of making the Web a global, distributed, semantics-based information system. This book presents an overview on the results of the research project "LOD2 -- Creating Knowledge out of Interlinked Data". LOD2 is a large-scale integrating project co-funded by the European Commission within the FP7 Information and Communication Technologies Work Program. Commencing in September 2010, this 4-year project comprised leading Linked Open Data research groups, companies, and service providers from across 11 European countries and South Korea. The aim of this project was to advance the state-of-the-art in research and development in four key areas relevant for Linked Data, namely 1. RDF data management; 2. the extraction, creation, and enrichment of structured RDF data; 3. the interlinking and fusion of Linked Data from different sources and 4. the authoring, exploration and visualization of Linked Data.

MUSIC 2013 will be the most comprehensive text focused on the various aspects of Mobile, Ubiquitous and Intelligent computing. MUSIC 2013 provides an opportunity for academic and industry professionals to discuss the latest issues and progress in the area of intelligent technologies in mobile and ubiquitous computing environment. MUSIC 2013 is the next edition of the 3rd International Conference on Mobile, Ubiquitous, and Intelligent Computing (MUSIC-12, Vancouver, Canada, 2012) which was the next event in a series of highly successful International Workshop on Multimedia, Communication and Convergence technologies MCC-11 (Crete, Greece, June 2011), MCC-10 (Cebu, Philippines, August 2010).

This book constitutes the refereed proceedings of the 7th International Provenance and Annotation Workshop, IPAW 2018, held in London, UK, in July 2018. The 12 revised full papers, 19 poster papers, and 2 demonstration papers presented were carefully reviewed and selected from 50 submissions. The papers feature a variety of provenance-related topics ranging from the capture and inference of provenance to its use and application.They are organized in topical sections on reproducibility; modeling, simulating and capturing provenance; PROV extensions; scientific workflows; applications; and system demonstrations.

This book constitutes the refereed proceedings of the First Asian Semantic Web Conference, ASWC 2006, held in Beijing, China, in September 2006. The 36 revised full papers and 36 revised short papers presented together with three invited contributions were carefully reviewed and selected from 208 full paper submissions. The papers are organized in topical sections.

Knowledge Science, Engineering and Management

Web Technologies and Applications

23rd International Conference, DaWaK 2021, Virtual Event, September 27–30, 2021, Proceedings

2021 IEEE 24th International Conference on Computer Supported Cooperative Work in Design (CSCWD)

Color Medical Image Analysis

Handbook of Semantic Web Technologies

8th International Conference, KSEM 2015, Chongqing, China, October 28-30, 2015, Proceedings

This book constitutes the refereed proceedings of the 8th International Conference on Knowledge Science, Engineering and Management, KSEM 2015, held in Chongqing, China, in October 2015. The 57 revised full papers presented together with 22 short papers and 5 keynotes were carefully selected and reviewed from 247 submissions. The papers are organized in topical sections on formal reasoning and ontologies; knowledge management and concept analysis; knowledge discovery and recognition methods; text mining and analysis; recommendation algorithms and systems; machine learning algorithms; detection methods and analysis; classification and clustering; mobile data analytics and knowledge management; bioinformatics and computational biology; and evidence theory and its application.

Collaboration technologies and applications to the design of processes, products, systems, and services in industries and societies Application domains include aerospace, automotive, manufacturing, construction, logistics, transportation, etc

Drawn from the US National Science Foundation's Symposium on Next Generation of Data Mining and Cyber-Enabled Discovery for Innovation (NGDM 07), Next Generation of Data Mining explores emerging technologies and applications in data mining as well as potential challenges faced by the field. Gathering perspectives from top experts across different disciplines, the book debates upcoming challenges and outlines computational methods. The contributors look at how ecology, astronomy, social science, medicine, finance, and more can benefit from the next generation of data mining techniques. They examine the algorithms, middleware, infrastructure, and privacy policies associated with ubiquitous, distributed, and high performance data mining. They also discuss the impact of new technologies, such as the semantic web, on data mining and provide recommendations for privacy-preserving mechanisms. The dramatic increase in the availability of massive, complex data from various sources is creating computing, storage, communication, and human-computer interaction challenges for data mining. Providing a framework to better understand these fundamental issues, this volume surveys promising approaches to data mining problems that span an array of disciplines.

RDF Database Systems is a cutting-edge guide that distills everything you need to know to effectively use or design an RDF database. This book starts with the basics of linked open data and covers the most recent research, practice, and technologies to help you leverage semantic technology. With an approach that combines technical detail with theoretical background, this book shows how to design and develop semantic web applications, data models, indexing and query processing solutions. Understand the Semantic Web, RDF, RDFS, SPARQL, and OWL within the context of relational database management and NoSQL systems Learn about the prevailing RDF triples solutions for both relational and non-relational databases, including column family, document, graph, and NoSQL Implement systems using RDF data with helpful guidelines and various storage solutions for RDF Process SPARQL queries with detailed explanations of query optimization, query plans, caching, and more Evaluate which approaches and systems to use when developing Semantic Web applications with a helpful description of commercial and open-source systems

Since the early 20th century, medical imaging has been dominated by monochrome imaging modalities such as x-ray, computed tomography, ultrasound, and magnetic resonance imaging. As a result, color information has been overlooked in medical image analysis applications. Recently, various medical imaging modalities that involve color information have been introduced. These include cervicography, dermoscopy, fundus photography, gastrointestinal endoscopy, microscopy, and wound photography. However, in comparison to monochrome images, the analysis of color images is a relatively unexplored area. The multivariate nature of color image data presents new challenges for researchers and practitioners as the numerous methods developed for monochrome images are often not directly applicable to multichannel images. The goal of this volume is to summarize the state-of-the-art in the utilization of color information in medical image analysis.

Advances in Object-oriented Data Modeling

Advances in Computing, Communication and Control

Database System Concepts

Web Engineering

7th International Conference, KESW 2016, Prague, Czech Republic, September 21-23, 2016, Proceedings

MUSIC 2013

The Semantic Web – ASWC 2006

This book constitutes the refereed proceedings of the International Conference on Advances in Computing Communications and Control, ICAC3 2011, held in Mumbai, India, in January 2011. The 84 revised full papers presented were carefully reviewed and selected from 309 submissions. The papers address issues such as AI, artificial neural mining, distributed computing, geo information and statistical computing, learning algorithms, system security, virtual reality, cloud computing, service oriented architecture, semantic web, coding techniques, modeling and simulation of communication systems, network architecture, network protocols, optical fiber/microwave communication, wired and wireless communication, cooperative control, and nonlinear control, process control and instrumentation, industrial automation, controls in aerospace, robotics, and power systems.

In recent years, an increasing number of organizations and individuals have contributed to the Semantic Web by publishing data according to the Linked Data principles. In addition, a significant body of Semantic Web research exists that studies various aspects of knowledge representation and automated reasoning over collections of such the vision of a Semantic Web – but that has not yet been studied to a comparable extent – is to enable automated software agents to operate directly on decentralized Linked Data that is distributed over the WWW. In particular, fundamental questions related to querying this data on the WWW have received very limited research attention the foundations of declarative queries over Linked Data on the WWW. Our particular focus in this book are approaches to use the SPARQL query language and execute queries by traversing Linked Data live during the query execution process. More specifically, we first provide formal foundations to adapt SPARQL to the given context. There show computational feasibility and related properties of the resulting types of SPARQL queries. Additionally, we investigate fundamental properties of applying the traversal-based approach to query execution that is tailored to the use case of querying Linked Data directly on the WWW.

Ontologies are formal knowledge models that describe concepts and relationships and enable data integration, information search, and reasoning. Ontology Design Patterns (ODPs) are reusable solutions intended to simplify ontology development and support the use of semantic technologies by ontology engineers. ODPs document and pack inexperienced ontologists to construct high-quality ontologies. Although ODPs are already used for development, there are still remaining challenges that have not been addressed in the literature. These research gaps include a lack of knowledge about (1) which ODP features are important for ontology engineering, (2) less experienced dev tooling, and (3) the suitability of the eXtreme Design (XD) ODP usage methodology in non-academic contexts. This dissertation aims to close these gaps by combining quantitative and qualitative methods, primarily based on five ontology engineering projects involving inexperienced ontologists. A series of ontology engineering workshops an regarding ODP features, ODP usage methodology, and ODP tooling needs. Other data sources are ontologies and ODPs published on the web, which have been studied in detail. To evaluate tooling improvements, experimental approaches provide data from comparison of new tools and techniques against established alternatives. The analysis quality indicators that cover aspects of ODP documentation, formal representation or axiomatisation, and usage by ontologists. These indicators highlight quality trade-offs: for instance, between ODP Learnability and Reusability, or between Functional Suitability and Performance Efficiency. Furthermore, the results demonstrate a need for (specialisation strategies, and highlight the preference of inexperienced developers for template-based ODP instantiation---neither of which are supported in prior tooling. The studies also resulted in improvements to ODP search engines based on ODP-specific attributes. Finally, the analysis shows that XD should include guidance for the dev engineering projects, suggestions on how to reuse existing ontology resources, and approaches for adapting XD to project-specific contexts.

In today's hyper-transparent world, consumers have enormous power to decide which brands are worth their time and money—so how do you make sure they choose yours? Unfortunately, most leaders and organizations are stuck following archaic, detrimental business practices. Meanwhile, savvy consumers and employees across every g not interested in supporting organizations that seem inauthentic, soulless, or untrustworthy. In this environment, only the honest will survive. In Honest to Greatness, serial Inc. 5000 entrepreneur Peter Kozodoy shows how today's greatest business leaders use honesty—not as a touchy-feely core value, but as a business strategy that pr case studies and interviews with leaders at Bridgewater Associates, Sprint, Quicken Loans, Domino's, The Ritz-Carlton, and more, Kozodoy presents fresh business concepts that anyone in the workplace can implement in order to: • Reach, engage, and retain your best customers • Attract and inspire the best talent in any industry • Create competitors • Earn your team's respect and loyalty • Unlock deep personal fulfillment by setting the "right" goals Filled with powerful lessons for current and future leaders, this timely book demonstrates how to use honesty at both the organizational and individual level to achieve true greatness in business and in life.

After years of mostly theoretical research, Semantic Web Technologies are now reaching out into application areas like bioinformatics, eCommerce, eGovernment, or Social Webs. Applications like genomic ontologies, semantic web services, automated catalogue alignment, ontology matching, or blogs and social networks are constantly incre like Google, Amazon, YouTube, Facebook, LinkedIn and others. The need to leverage the potential of combining information in a meaningful way in order to be able to benefit from the Web will create further demand for and interest in Semantic Web research. This movement, based on the growing maturity of related research results, necess to the field can draw a first basic knowledge of the main underlying technologies as well as state-of-the-art application areas. This handbook, put together by three leading authorities in the field, and supported by an advisory board of highly reputed researchers, fulfils exactly this need. It is the first dedicated reference work in this field, c foundations of the Semantic Web as well as their main usage in other scientific fields like life sciences, engineering, business, or education.

Triples Storage and SPARQL Query Processing

Guidelines Based on Charles Sanders Peirce

Ontologies:

Graph Data Management

Big Data Analytics and Knowledge Discovery

Confident Introvert

A Semantic Web Primer, third edition

The Encyclopedia of Big Data Technologies provides researchers, educators, students and industry professionals with a comprehensive authority over the most relevant Big Data Technology concepts. With over 300 articles written by worldwide subject matter experts from both industry and academia, the encyclopedia covers topics such as big data storage systems, NoSQL database, cloud computing, distributed systems, data processing, data management, machine learning and social technologies, data science. Each peer-reviewed, highly structured entry provides the reader with basic terminology, subject overviews, key research results, application examples, future directions, cross references and a bibliography. The entries are expository and tutorial, making this reference a practical resource for students, academics, or professionals. In addition, the distinguished, international editorial board of the encyclopedia consists of well-respected scholars, each developing topics based upon their expertise.

This book constitutes the thoroughly refereed post-conference proceedings of the 20th International Conference on Case-Based Reasoning Research and Development (ICCBR 2012) held in Lyon, France, September 3-6, 2012. The 34 revised full papers presented were carefully selected from 51 submissions. The presentations and posters covered a wide range of CBR topics of interest to both practitioners and researchers, including foundational issues covering case representation, similarity, retrieval, and adaptation; conversational CBR recommender systems; multi-agent collaborative systems; data mining; time series analysis; Web applications; knowledge management; legal reasoning; healthcare systems and planning and scheduling systems.

This major work on knowledge representation is based on the writings of Charles S. Peirce, a logician, scientist, and philosopher of the first rank at the beginning of the 20th century. This book follows Peirce's practical guidelines and universal categories in a structured approach to knowledge representation that captures differences in events, entities, relations, attributes, types, and concepts. Besides the ability to capture meaning and context, the Peircean approach is also well-suited to machine learning and knowledge-based artificial intelligence. Peirce is a founder of pragmatism, the uniquely American philosophy. Knowledge representation is shorthand for how to represent human symbolic information and knowledge to computers to solve complex questions. KR applications range from semantic technologies and knowledge management and machine learning to information integration, data interoperability, and natural language understanding. Knowledge representation is an essential foundation for knowledge-based AI. This book is structured into five parts. The first and last parts are bookends that first set the context and background and conclude with practical applications. The three main parts that are the meat of the approach first address the terminologies and grammar of knowledge representation, then building blocks for KR systems, and then design, build, test, and best practices in putting a system together. Throughout, the book refers to and leverages the open source KBpedia knowledge graph and its public knowledge bases, including Wikipedia and Wikidata. KBpedia is a ready baseline for users to bridge from and expand for their own domain needs and applications. It is built from the ground up to reflect Peircean principles. This book is one of timeless, practical guidelines for how to think about KR and to design knowledge management (KM) systems. The book is grounded bedrock for enterprise information and knowledge managers who are contemplating a new knowledge initiative. This book is an essential addition to theory and practice for KR and semantic technology and AI researchers and practitioners, who will benefit from Peirce's profound understanding of meaning and context.

This book constitutes the refereed proceedings of workshops, held at the 30th International Conference on Conceptual Modeling, ER 2011, in Brussels, Belgium in October/November 2011. The 31 revised full papers presented together with 9 posters and demonstrations (out of 88 submissions) for the workshops and the 6 papers (out of 11 submissions) for the industrial track were carefully reviewed and selected. The papers are organized in sections on the workshops Web Information Systems Modeling (WISM); Modeling and Reasoning for Business Intelligence (MORE-BI); Software Variability Management (Variability@ER); Ontologies and Conceptual Modeling (Onto.Com); Semantic and Conceptual Issues in GIS (SeCoGIS); and Foundations and Practices of UML (FP-UML).

This book constitutes the refereed proceedings of the 19th International Conference on Case-Based Reasoning, held in London, UK, in September 2011. The 32 contributions presented together with 3 invited talks were carefully reviewd and selected from 67 submissions. The presentations and posters covered a wide range of CBR topics of interest both to practitioners and researchers, including CBR methodology covering case representation, similarity, retrieval, and adaptation; provenance and maintenance; recommender systems; multi-agent collaborative systems; data mining; time series analysis; Web applications; knowledge management; legal reasoning; healthcare systems and planning systems.

Provenance and Annotation of Data and Processes

RDF Database Systems

Second International Semantic Web Conference, Sanibel Island, FL, USA, October 20-23, 2003, Proceedings

Querying a Web of Linked Data

Content Ontology Design Patterns: Qualities, Methods, and Tools

Mobile, Ubiquitous, and Intelligent Computing

Exploiting Semantic Web Knowledge Graphs in Data Mining

Web Technologies and Applications13th Asia-Pacific Web Conference, APWeb 2011, Beijing, Chiina, April 18-20, 2011. ProceedingsSpringer Science & Business Media

These proceedings contain 25 contributed papers presented at the 13th East- EuropeanConferenceAdvances on Databases and InformationSystems (ADBIS 2009) held September 7-10, 2009, in Riga, Latvia. The Call for Papers attracted 93 submissions from 28 countries. In a rigorous reviewing process the inter- tional Program Committee of 64 members from 29 countries selected these 25 contributions for publication in this volume; in addition, there is the abstract of an invited talk by Matthias Brantner. Furthermore, 18 additional contributions were selected for short presentations and have been published in a separate v- ume of local proceedings by the organizing institution. Topically, the accepted paperscoverawidespectrumofdatabaseandinformationsystemtopicsranging from query processing and optimization via query languages, design methods, data integration, indexing and caching to business processes, data mining, and application oriented topics like XML and data on the Web. The ADBIS 2009conference continued the series of ADBIS conferencesor- nized every year in di?erent countries of Easternand Central Europe, beginning in St. Petersburg (Russia, 1997), Poznan (Poland, 1998), Maribor (Slovenia, 1999), Prague (Czech Republic, as a joint ADBIS-DASFAA conference, 2000), Vilnius(Lithuania,2001), Bratislava(Slovakia,2002), Dresden(Germany,2003), Budapest(Hungary,2004), Tallinn(Estonia,2005), Thessaloniki(Greece,2006), Varna (Bulgaria, 2007), and Pori (Finland, 2008). The conferences are initiated and supervised by an international Steering Committee, which consists of r- resentatives from Armenia, Austria, Bulgaria, Czech Republic, Greece, Estonia, Germany, Hungary, Israel, Italy, Latvia, Lithuania, Poland, Russia, Serbia, S- vakia, Slovenia, and Ukraine, and is chaired by Professor Leonid Kalinichenko.

This book constitutes the proceedings of the 13th Asia-Pacific Conference APWeb 2011 held in conjunction with the APWeb 2011 Workshops XMLDM and USD, in Beijing, China, in April 2011. The 26 full papers presented together with 10 short papers, 3 keynote talks, and 4 demo papers were carefully reviewed and selected from 104 submissions. The submissions range over a variety of topics such as classification and clustering; spatial and temporal databases; personalization and recommendation; data analysis and application; Web mining; Web search and information retrieval; complex and social networks; and secure and semantic Web.

Data Mining and Knowledge Discovery in Databases (KDD) is a research field concerned with deriving higher-level insights from data. The tasks performed in this field are knowledge intensive and can benefit from additional knowledge from various sources, so many approaches have been proposed that combine Semantic Web data with the data mining and knowledge discovery process. This book, Exploiting Semantic Web Knowledge Graphs in Data Mining, aims to show that Semantic Web knowledge graphs are useful for generating valuable data mining features that can be used in various data mining tasks. In Part I, Mining Semantic Web Knowledge Graphs, the author evaluates unsupervised feature generation strategies from types and relations in knowledge graphs used in different data mining tasks such as classification, regression, and outlier detection. Part II, Semantic Web Knowledge Graphs Embeddings, proposes an approach that circumvents the shortcomings introduced with the approaches in Part I, developing an approach that is able to embed complete Semantic Web knowledge graphs in a low dimensional feature space where each entity and relation in the knowledge graph is represented as a numerical vector. Finally, Part III, Applications of Semantic Web Knowledge Graphs, describes a list of applications that exploit Semantic Web knowledge graphs like classification and regression, showing that the approaches developed in Part I and Part II can be used in applications in various domains. The book will be of interest to all those working in the field of data mining and KDD.

This book constitutes the refereed proceedings of the 21st International Conference on Big Data Analytics and Knowledge Discovery, DaWaK 2019, held in Linz, Austria, in September 2019. The 12 full papers and 10 short papers presented were carefully reviewed and selected from 61 submissions. The papers are organized in the following topical sections: Applications; patterns; RDF and streams; big data systems; graphs and machine learning; databases.

How Today's Greatest Leaders Use Brutal Honesty to Achieve Massive Success

Knowledge Engineering and Semantic Web

Enterprise Information Portals and Knowledge Management

Knowledge Technology

Ontology Matching

Techniques and Applications

Honest to Greatness

Database System Concepts by Silberschatz, Korth and Sudarshan is now in its 6th edition and is one of the cornerstone texts of database education. It presents the fundamental concepts of database management in an intuitive manner geared toward allowing students to begin working with databases as quickly as possible. The text is designed for a first course in databases at the junior/senior undergraduate level or the first year graduate level. It also contains additional material that can be used as supplements or as introductory material for an advanced course. Because the authors present concepts as intuitive descriptions, a familiarity with basic data structures, computer organization, and a high-level programming language are the only prerequisites. Important theoretical results are covered, but formal proofs are omitted. In place of proofs, figures and examples are used to suggest why a result is true.

Evolution of Social Networks

19th International Conference on Case-Based Reasoning, ICCBR 2011, London, UK, September 12-15, 2011, Proceedings

A Knowledge Representation Practionary

13th Asia-Pacific Web Conference, APWeb 2011, Beijing, Chiina, April 18-20, 2011. Proceedings

ER 2011 Workshops FP-UML, MoRE-BI, Onto-CoM, SeCoGIS, Variability@ER, WISM, Brussels, Belgium, October 31 - November 3, 2011

20th International Conference, ICCBR 2012, Lyon, France, September 3-6, 2012, Proceedings