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Information-theoretic causal inference of lexical flowDigital Signal Processing in Communications SystemsDerivatives Analytics with PythonMilitary Operating Concepts DevelopmentThe Impact of eConveyancing on Title RegistrationSeafood and Aquaculture Marketing HandbookCreating Shared Value as Future Factor of CompetitionHealth Equity and Financial ProtectionAssessing Business ExcellenceTensorFlow for Deep LearningThe Mathematics of Banking and FinanceSecurity by DesignDocument ComputingAdvanced Oxidation Processes for Water TreatmentThe Rehabilitation of Partner-Violent MenEssentials of Strategic Planning in HealthcareSpring DataMastering XMIModel Driven Architecture and Ontology DevelopmentInternational Valuation StandardsSatellite NetworkingFundamentals of Data Mining in Genomics and ProteomicsQuality Systems HandbookGame TheoryRouting Protocols Companion GuideClinical Trials in PsychiatryKey Concepts in Adult Education and TrainingThermophilic Moulds in BiotechnologyEthical HackingResearch in Applied LinguisticsWeighted Network AnalysisDesigning Software ArchitecturesInformation Storage and Retrieval SystemsThe Engineering Design of SystemsInformation Retrieval SystemsSurvey of Advanced MicroprocessorsIntroduction to C++ for Financial EngineersAn Introduction to Database SystemsResponding to Climate Change in New York StateMusic in Theory and Practice

Information-theoretic causal inference of lexical flow

Designing Software Architectures will teach you how to design any software architecture in a systematic, predictable, repeatable, and cost-effective way. This book introduces a practical methodology for architecture design that any professional software engineer can use, provides structured methods supported by reusable chunks of design knowledge, and includes rich case studies that demonstrate how to use the methods. Using realistic examples, you'll master the powerful new version of the proven Attribute-Driven Design (ADD) 3.0 method and will learn how to use it to address key drivers, including quality attributes, such as modifiability, usability, and availability, along with functional requirements and architectural concerns. Drawing on their extensive experience, Humberto Cervantes and Rick Kazman guide you through crafting practical designs that support the full software life cycle, from requirements to maintenance and evolution. You'll learn how to successfully integrate design in your organizational context, and how to design systems that will be built with agile methods. Comprehensive coverage includes Understanding what architecture design involves, and where it fits in the full software development life cycle Mastering core design concepts, principles, and processes Understanding how to perform the steps of the ADD method Scaling design and analysis up or down, including design for pre-sale processes or lightweight architecture reviews Recognizing and optimizing critical relationships between analysis and design Utilizing proven, reusable design primitives and adapting them to specific problems and contexts Solving design problems in new domains, such as cloud, mobile, or big data

Digital Signal Processing in Communications Systems

Document Computing: Technologies for Managing Electronic Document Collections discusses the important aspects of document computing and recommends technologies and techniques for document management, with an emphasis on the processes that are appropriate when computers are used to create, access, and publish documents. Document Computing: Technologies for Managing Electronic Document Collections brings together concepts, research, and practice from diverse areas including document computing, information retrieval, librarianship, records management, and business process re-engineering. It will be of value to anyone working in these areas, whether as a researcher, a developer, or a user.

Derivatives Analytics with Python

Aquaculture, the farming of aquatic animals and plants, and other seafood businesses continue to grow rapidly around the world. However, many of these businesses fail due to the lack of sufficient attention to marketing. The Seafood and Aquaculture Marketing Handbook provides the reader with a comprehensive, yet user-friendly presentation of key concepts and tools necessary for aquaculture and seafood businesses to evaluate and adapt to changing market conditions. Markets for aquaculture and seafood products are diverse, dynamic, and complex. The Seafood and Aquaculture Marketing Handbook presents fundamental principles of marketing, specific discussion of aquaculture and seafood market channels and supply chains from around the world, and builds towards a step-by-step approach to strategic market planning for successful aquaculture and seafood businesses. This book is an essential reference for all aquaculture and seafood businesses as well as students of aquaculture. The volume contains a series of synopses of specific markets, an extensive annotated bibliography, and webliography for additional sources of information. Written by authors with vast experience in international marketing of aquaculture and seafood products, this volume is a valuable source of guidance for those seeking to identify profitable markets for their aquaculture and seafood products.

Military Operating Concepts Development

The definitive introduction to game theory This comprehensive textbook introduces readers to the principal ideas and applications of game theory, in a style that combines rigor with accessibility. Steven Tadelis begins with a concise description of rational decision making, and goes on to discuss strategic and extensive form games with complete information, Bayesian games, and extensive form games with imperfect information. He covers a host of topics, including multistage and repeated games, bargaining theory, auctions, rent-seeking games, mechanism design, signaling games, reputation building, and information transmission games. Unlike other books on game theory, this one begins with the idea of rationality and explores its implications for multiperson decision problems through concepts like dominated strategies and rationalizability. Only then does it present the subject of Nash equilibrium and its derivatives. Game Theory is the ideal textbook for advanced undergraduate and beginning graduate students. Throughout, concepts and methods are explained using real-world examples backed by precise analytic

material. The book features many important applications to economics and political science, as well as numerous exercises that focus on how to formalize informal situations and then analyze them. Introduces the core ideas and applications of game theory Covers static and dynamic games, with complete and incomplete information Features a variety of examples, applications, and exercises Topics include repeated games, bargaining, auctions, signaling, reputation, and information transmission Ideal for advanced undergraduate and beginning graduate students Complete solutions available to teachers and selected solutions available to students

The Impact of eConveyancing on Title Registration

The growth of the Internet and the availability of enormous volumes of data in digital form have necessitated intense interest in techniques to assist the user in locating data of interest. The Internet has over 350 million pages of data and is expected to reach over one billion pages by the year 2000. Buried on the Internet are both valuable nuggets to answer questions as well as a large quantity of information the average person does not care about. The Digital Library effort is also progressing, with the goal of migrating from the traditional book environment to a digital library environment. The challenge to both authors of new publications that will reside on this information domain and developers of systems to locate information is to provide the information and capabilities to sort out the non-relevant items from those desired by the consumer. In effect, as we proceed down this path, it will be the computer that determines what we see versus the human being. The days of going to a library and browsing the new book shelf are being replaced by electronic searching the Internet or the library catalogs. Whatever the search engines return will constrain our knowledge of what information is available. An understanding of Information Retrieval Systems puts this new environment into perspective for both the creator of documents and the consumer trying to locate information.

Seafood and Aquaculture Marketing Handbook

Chapter 1 places into perspective a total Information Storage and Retrieval System. This perspective introduces new challenges to the problems that need to be theoretically addressed and commercially implemented. Ten years ago commercial implementation of the algorithms being developed was not realistic, allowing theoreticians to limit their focus to very specific areas. Bounding a problem is still essential in deriving theoretical results. But the commercialization and insertion of this technology into systems like the Internet that are widely being used changes the way problems are bounded. From a theoretical perspective, efficient scalability of algorithms to systems with gigabytes and terabytes of data, operating with minimal user search statement information, and making maximum use of all functional aspects of an information system need to be considered. The dissemination systems using persistent indexes or mail files to modify ranking algorithms and combining the search of structured information fields and free text into a consolidated weighted output are examples of potential new areas of investigation. The best way for the theoretician or the commercial developer to understand the importance of problems to be solved is to place them in the context of a total vision of a complete system. Understanding the differences

between Digital Libraries and Information Retrieval Systems will add an additional dimension to the potential future development of systems. The collaborative aspects of digital libraries can be viewed as a new source of information that dynamically could interact with information retrieval techniques.

Creating Shared Value as Future Factor of Competition

This edited book captures salient global security challenges and presents 'design' solutions in dealing with wicked problems. Through case studies and applied research this book reveals the many perspectives, tools and approaches to support security design. Security design thereby can support risk and threat analysis, risk communication, problem framing and development of interventions strategies. From the refugee crisis to economic slowdowns in emerging markets, from ever-rising numbers of terrorist and cyberattacks to global water shortages, to the proliferation of the Internet of Things and its impact on the security of our homes, cities and critical infrastructure, the current security landscape is diverse and complex. These global risks have been in the headlines in the last year (Global Risks Report) and pose significant security challenges both nationally and globally. In fact, national security is no longer just national. Non-state actors, cyber NGO, rising powers, and hybrid wars and crimes in strategic areas pose complex challenges to global security. In the words of Horst Rittel (1968):"Design is an activity, which aims at the production of a plan, which plan -if implemented- is intended to bring about a situation with specific desired characteristics without creating unforeseen and undesired side and after effects."

Health Equity and Financial Protection

Benedikt von Liel provides a theoretical and empirical analysis of the concept of Creating Shared Value (CSV). In the theoretical analysis, the author assesses the uniqueness of the theory of Creating Shared Value by comparing it to other relevant social responsibility concepts. The empirical analysis provides insights from over 60 industry case studies of Creating Shared Value. The assessment includes the influence of geography as well as a range of other relevant external and internal factors. As a result, the author identifies critical success factors for the creation of shared value.

Assessing Business Excellence

New for the third edition, chapters on: Complete Exercise of the SE Process, System Science and Analytics and The Value of Systems Engineering The book takes a model-based approach to key systems engineering design activities and introduces methods and models used in the real world. This book is divided into three major parts: (1) Introduction, Overview and Basic Knowledge, (2) Design and Integration Topics, (3) Supplemental Topics. The first part provides an introduction to the issues associated with the engineering of a system. The second part covers the critical material required to understand the major elements needed in the engineering design of any system: requirements, architectures (functional, physical, and allocated), interfaces, and qualification. The final part reviews methods for data, process, and behavior modeling, decision analysis, system

science and analytics, and the value of systems engineering. Chapter 1 has been rewritten to integrate the new chapters and updates were made throughout the original chapters. Provides an overview of modeling, modeling methods associated with SysML, and IDEF0 Includes a new Chapter 12 that provides a comprehensive review of the topics discussed in Chapters 6 through 11 via a simple system – an automated soda machine Features a new Chapter 15 that reviews General System Theory, systems science, natural systems, cybernetics, systems thinking, quantitative characterization of systems, system dynamics, constraint theory, and Fermi problems and guesstimation Includes a new Chapter 16 on the value of systems engineering with five primary value propositions: systems as a goal-seeking system, systems engineering as a communications interface, systems engineering to avert showstoppers, systems engineering to find and fix errors, and systems engineering as risk mitigation The Engineering Design of Systems: Models and Methods, Third Edition is designed to be an introductory reference for professionals as well as a textbook for senior undergraduate and graduate students in systems engineering.

TensorFlow for Deep Learning

As adults, we are all continually involved in learning, with increasing numbers of us engaged in more formalized forms of learning; that is, in education or training. All those involved in the broad field of adult education and training will come into contact with many specialist ideas or concepts. It is often assumed of students that they already have a general understanding of these concepts, their meanings, applicability and inter-relationships. This is not always the case. This book examines in detail over forty of these key concepts, ranging from community education and experiential learning to competence and access. It presents a clear, analytical discussion in jargon-free language. It is, therefore, indispensable to all students and practitioners of adult education and training.

The Mathematics of Banking and Finance

An engineer's introduction to concepts, algorithms, and advancements in Digital Signal Processing. This lucidly written resource makes extensive use of real-world examples as it covers all the important design and engineering references.

Security by Design

For over 25 years, C. J. Dates An Introduction to Database Systems has been the authoritative resource for readers interested in gaining insight into and understanding of the principles of database systems. This exciting revision continues to provide a solid grounding in the foundations of database technology and to provide some ideas as to how the field is likely to develop in the future. The material is organized into six major parts. Part I provides a broad introduction to the concepts of database systems in general and relational systems in particular. Part II consists of a careful description of the relational model, which is the theoretical foundation for the database field as a whole. Part III discusses the general theory of database design. Part IV is concerned with transaction management. Part V shows how relational concepts are relevant to a variety of

further aspects of database technology-security, distributed databases, temporal data, decision support, and so on. Finally, Part VI describes the impact of object technology on database systems. This Seventh Edition of An Introduction to Database Systems features widely rewritten material to improve and amplify treatment o

Document Computing

Microprocessors have come a long way since their conception. They have become formidable processing tools, and we encounter them in almost every part of our daily activities, from the kitchen with its microwave oven to the cockpit of a sophisticated aircraft. The purposes of this book are to "walk through" the current microprocessor technology and briefly to describe some of the most advanced microprocessors available. The book is a survey of ad vanced microprocessors, aimed particularly at the engineering manager rather than the design engineer. Chapter One outlines the history of microprocessors and describes some terminology used in computer architecture. Chapter Two discusses advanced computer concepts, such as data and data types, addressing modes, pipe lining, and cache memory. Chapter Three .describes new computer architectures, such as reduced-instruction-set computers (RISes) and very-long-instruc tion-word computers. RISC architecture has become very popular among designers. Chapter Four discusses an architecture, data-flow, which is a departure from the conventional von Neumann architecture. NEC has applied the dataflow architecture on the design of a very sophis ticated image processing chip, the NEC PD7281. Chapters Five and Six are case studies, describing the Am29000 and the Transputer, respectively. Chapter Seven describes microprocessors specifically designed for digital signal processing. Chapter Eight discusses micromultiprocessing and describes the various topologies currently used.

Advanced Oxidation Processes for Water Treatment

International Valuation Standards: a guide to the valuation of real property assets is an essential road map to using the new International Valuation Standards in everyday practice for real estate assets, explains their content, application and operation. It shows how to value assets including property, plant and equipment and is written in an explanatory style using commonly understood business English with as little jargon as possible. It takes a thematic format, focusing on the application of IVSs to investment property and owner-occupied property with the author addressing valuation instruction, operation and reporting under IVSs.

The Rehabilitation of Partner-Violent Men

This volume seeks to infer large phylogenetic networks from phonetically encoded lexical data and contribute in this way to the historical study of language varieties. The technical step that enables progress in this case is the use of causal inference algorithms. Sample sets of words from language varieties are preprocessed into automatically inferred cognate sets, and then modeled as information-theoretic variables based on an intuitive measure of cognate overlap. Causal inference is then applied to these variables in order to determine the existence and direction of

influence among the varieties. The directed arcs in the resulting graph structures can be interpreted as reflecting the existence and directionality of lexical flow, a unified model which subsumes inheritance and borrowing as the two main ways of transmission that shape the basic lexicon of languages. A flow-based separation criterion and domain-specific directionality detection criteria are developed to make existing causal inference algorithms more robust against imperfect cognacy data, giving rise to two new algorithms. The Phylogenetic Lexical Flow Inference (PLFI) algorithm requires lexical features of proto-languages to be reconstructed in advance, but yields fully general phylogenetic networks, whereas the more complex Contact Lexical Flow Inference (CLFI) algorithm treats proto-languages as hidden common causes, and only returns hypotheses of historical contact situations between attested languages. The algorithms are evaluated both against a large lexical database of Northern Eurasia spanning many language families, and against simulated data generated by a new model of language contact that builds on the opening and closing of directional contact channels as primary evolutionary events. The algorithms are found to infer the existence of contacts very reliably, whereas the inference of directionality remains difficult. This currently limits the new algorithms to a role as exploratory tools for quickly detecting salient patterns in large lexical datasets, but it should soon be possible for the framework to be enhanced e.g. by confidence values for each directionality decision.

Essentials of Strategic Planning in Healthcare

This book presents state-of-the-art analytical methods from statistics and data mining for the analysis of high-throughput data from genomics and proteomics. It adopts an approach focusing on concepts and applications and presents key analytical techniques for the analysis of genomics and proteomics data by detailing their underlying principles, merits and limitations.

Spring Data

Defining a formal domain ontology is considered a useful, not to say necessary step in almost every software project. This is because software deals with ideas rather than with self-evident physical artefacts. However, this development step is hardly ever done, as ontologies rely on well-defined and semantically powerful AI concepts such as description logics or rule-based systems, and most software engineers are unfamiliar with these. This book fills this gap by covering the subject of MDA application for ontology development on the Semantic Web. The writing is technical yet clear, and is illustrated with examples. The book is supported by a website.

Mastering XMI

Quality Systems Handbook is a reference book that covers concepts and ideas in quality system. The book is comprised of two parts. Part 1 provides the background information of ISO 9000, such as its origin, composition, application, and the strategies for registration. Part 2 covers topics relevant to the ISO 9000 requirements, which include design control, internal quality audits, and statistical techniques. The text will be useful to managers, auditors, and quality practitioners

who require reference in the various aspects of quality systems.

Model Driven Architecture and Ontology Development

Supercharge options analytics and hedging using the power of Python Derivatives Analytics with Python shows you how to implement market-consistent valuation and hedging approaches using advanced financial models, efficient numerical techniques, and the powerful capabilities of the Python programming language. This unique guide offers detailed explanations of all theory, methods, and processes, giving you the background and tools necessary to value stock index options from a sound foundation. You'll find and use self-contained Python scripts and modules and learn how to apply Python to advanced data and derivatives analytics as you benefit from the 5,000+ lines of code that are provided to help you reproduce the results and graphics presented. Coverage includes market data analysis, risk-neutral valuation, Monte Carlo simulation, model calibration, valuation, and dynamic hedging, with models that exhibit stochastic volatility, jump components, stochastic short rates, and more. The companion website features all code and IPython Notebooks for immediate execution and automation. Python is gaining ground in the derivatives analytics space, allowing institutions to quickly and efficiently deliver portfolio, trading, and risk management results. This book is the finance professional's guide to exploiting Python's capabilities for efficient and performing derivatives analytics. Reproduce major stylized facts of equity and options markets yourself Apply Fourier transform techniques and advanced Monte Carlo pricing Calibrate advanced option pricing models to market data Integrate advanced models and numeric methods to dynamically hedge options Recent developments in the Python ecosystem enable analysts to implement analytics tasks as performing as with C or C++, but using only about one-tenth of the code or even less. Derivatives Analytics with Python — Data Analysis, Models, Simulation, Calibration and Hedging shows you what you need to know to supercharge your derivatives and risk analytics efforts.

International Valuation Standards

All important aspects of thermophilic moulds such as systematics, ecology, physiology and biochemistry, production of extracellular and intracellular enzymes, their role in spoilage of stores products and solid and liquid waste management, and general and molecular genetics have been dealt with comprehensively by experts in this book which covers progress in the field over the last 30 years since the seminal book Thermophilic Fungi published by Cooney and Emerson in 1964. The experts have reviewed extensive literature on all aspects of thermophilic moulds in a very comprehensive manner. This book will be useful for graduates as well as post-graduate students of life sciences, mycology, microbiology and biotechnology, and as a reference book for researchers.

Satellite Networking

Climate change is already beginning to affect New York State and these impacts are projected to grow. At the same time, the state has the ability to develop adaptation strategies that will address many climate-related risks, thereby

reducing impacts and taking advantage of possible opportunities. The ClimAID assessment presented in this volume provides information on climate change impacts and adaptation for eight sectors in New York State: water resources, coastal zones, ecosystems, agriculture, energy, transportation, telecommunications, and public health. Observed climate trends and future climate projections were developed for seven regions across the state. Within each of the sectors, climate risks, vulnerabilities, and adaptation strategies are identified. Integrating themes across all of the sectors are equity and environmental justice and economics. Case studies are used to examine specific vulnerabilities and potential adaptation strategies in each of the eight sectors. These case studies also illustrate the linkages among climate vulnerabilities, risks, and adaptation, and demonstrate specific monitoring needs. Stakeholder participation was critical to the ClimAID assessment process to ensure relevance to decision makers across the state. NOTE: Annals volumes are available for sale as individual books or as a journal. For information on institutional journal subscriptions, please visit http://ordering.onlinelibrary.wiley.com/subs.asp?ref=1749-6632&doi=10.1111/(ISSN)1749-6632. ACADEMY MEMBERS: Please contact the New York Academy of Sciences directly to place your order (www.nyas.org). Members of the New York Academy of Science receive full-text access to Annals online and discounts on print volumes. Please visit http://www.nyas.org/MemberCenter/Join.aspx for more information about becoming a member.

Fundamentals of Data Mining in Genomics and Proteomics

Assessing Business Excellence presents a strategic framework for business excellence and total quality management and shows how you can be actively involved in continuous improvement by systematically reviewing your business activities and results against holistic business excellence frameworks. For all practitioners who seek to use total quality management to improve their organization's effectiveness, efficiency and responsiveness, this title is the essential route map to business excellence. From two leading expert authors comes a book where the most recognized quality award criteria are used to explore the concepts of business excellence and self-assessment. This book: * Introduces the major business excellence and total quality frameworks including The Malcolm Baldrige National Quality Award and the European Quality Award and ISO9000:2000 * Compares the frameworks and identifies their strengths and limitations * Introduces the self-assessment process * Explores the main approaches to self-assessment * Illustrates the practical benefits of self-assessment through case examples

Quality Systems Handbook

This work is an assessment of how to manage risk in property transactions in the context of the move from paper-based to electronic conveyancing (eConveyancing). In particular the focus is on risks that impact on title registration, and the security, protection or lack thereof that this registration offers to land owners, third parties and property claimants. The impact is the extent to which a change in the transactional process may unintentionally affect risk (being the consequence of change and the likelihood of that consequence having a negative

effect). The risks are identified, analysed and evaluated against the backdrop of title registration and the development of eConveyancing through a comparative analysis of the systems in Ireland and Ontario, while also referencing other developing electronic systems around the globe.

Game Theory

Throughout banking, mathematical techniques are used. Some of these are within software products or models; mathematicians use others to analyse data. The current literature on the subject is either very basic or very advanced. The Mathematics of Banking offers an intermediate guide to the various techniques used in the industry, and a consideration of how each one should be approached. Written in a practical style, it will enable readers to quickly appreciate the purpose of the techniques and, through illustrations, see how they can be applied in practice. Coverage is extensive and includes techniques such as VaR analysis, Monte Carlo simulation, extreme value theory, variance and many others. A practical review of mathematical techniques needed in banking which does not expect a high level of mathematical competence from the reader

Routing Protocols Companion Guide

Two key policy goals in the health sector are equity and financial protection. New methods, data and powerful computers have led to a surge of interest in quantitative analysis that permits monitoring progress toward these objectives, and comparisons across countries. ADePT is a new computer program that streamlines and automates such work, ensuring that results are genuinely comparable and allowing them to be produced with a minimum of programming skills. This book provides a step-by-step guide to the use of ADePT for quantitative analysis of equity and financial protection in the health sect

Clinical Trials in Psychiatry

High-throughput measurements of gene expression and genetic marker data facilitate systems biologic and systems genetic data analysis strategies. Gene co-expression networks have been used to study a variety of biological systems, bridging the gap from individual genes to biologically or clinically important emergent phenotypes.

Key Concepts in Adult Education and Training

Thermophilic Moulds in Biotechnology

This book introduces the reader to the C++ programming language and how to use it to write applications in quantitative finance (QF) and related areas. No previous knowledge of C or C++ is required -- experience with VBA, Matlab or other programming language is sufficient. The book adopts an incremental approach; starting from basic principles then moving on to advanced complex techniques and then to real-life applications in financial engineering. There are five major parts in

the book: C++ fundamentals and object-oriented thinking in QF Advanced object-oriented features such as inheritance and polymorphism Template programming and the Standard Template Library (STL) An introduction to GOF design patterns and their applications in QF Applications The kinds of applications include binomial and trinomial methods, Monte Carlo simulation, advanced trees, partial differential equations and finite difference methods. This book includes a companion website with all source code and many useful C++ classes that you can use in your own applications. Examples, test cases and applications are directly relevant to QF. This book is the perfect companion to Daniel J. Duffy's book Financial Instrument Pricing using C++ (Wiley 2004, 0470855096 / 9780470021620)

Ethical Hacking

Create more powerful, flexible applications using a new extension of the XML standard Programmers are finding that the XMI extension of the XML standard provides a lot more flexibility in writing software for sharing data. Written by one of the principal authors of XMI, this book provides programmers with everything they need to know to best utilize this extension. The authors cover the basics first, detailing the essential concepts and explaining how XMI relates to XML and UML. Readers will then learn how to program with XMI, including how to express data in XMI, create XMI documents with Java, and merge documents. Samples of real-world XMI applications are also included throughout the book that show how IBM is using XMI with data warehousing and how to convert simple relational databases into XMI. CD-ROM includes sample XMI source code and software tools for developing XMI and XML applications.

Research in Applied Linguistics

This book provides up to date coverage of the basics of ATM and internet protocols, and characteristics of satellite networks and internetworking between satellite and terrestrial networks Satellite Networking: Principles and Protocols, Second Edition provides up to date information of the original topics in satellite networking and protocols focusing on Internet Protocols (IP) over satellites, broadband over satellites, next generation IP (IPv6) over satellites, new generation of DVB-S/S2 and DVB-RCS next generations and new services and applications. It also includes some analytical techniques for evaluation of end to end IP performance and QoS over satellite, reflecting the recent convergence of telecommunication, Internet, broadcasting and mobile networks. Topics new to this edition: Internetworking with MANET, DVB-S/S2 and DVB-RCS/RCS2 (including TCP/IP over DVB-S/RCS), recent developments in broadband satellite systems, convergence of services and network technologies (including Internet, telecom, mobile, TV, etc.), radio resource management, PEP, I-PEP, SCPS, traffic modelling and engineering with analysis and examples, and future developments of satellite networking. Provides up to date coverage of the basics of ATM and internet protocols, and characteristics of satellite networks and internetworking between satellite and terrestrial networks (e.g. mobile ad hoc networks), including coverage of new services and applications (e.g. Internet, telecom, mobile and TV) Discusses the real-time protocols including RTP, RTCP and SIP for real-time applications such as VoIP and MMC, and explains TCP/IP over satellite and evolution of IPv6 over satellite and beyond

Weighted Network Analysis

Drawing on an extensive body of literature, The Rehabilitation of Partner-Violent Men presents an historical account of the policy changes that have led to rehabilitation programmes for male perpetrators of intimate partner violence within the criminal justice system. Presents a review of the current state of male partner-violence theory and related intervention programmes in the UK Draws on both national and international literature within the field Provides an overview of the theoretical foundation behind current approaches to the rehabilitation of partner-violent men Offers an appraisal of the effectiveness of current practices and directions for future advances in intervention and evaluation science

Designing Software Architectures

Essentials of Strategic Planning in Healthcare introduces readers to the factors influencing the strategic planning process in hospitals and other health services institutions today. Structured around a comprehensive case study and accompanying end-of-chapter exercises, this text places readers in the planner's seat, asking them to apply what they have learned to lead the hospital in the case study to success. Topics covered include: The role leadership plays in strategic planning Organizational factors critical to strategic planning Completing a SWOT analysis Analytical tools that support strategic planning Key data sources available to planners Strategic opportunities presented by pay-for-performance initiatives Communicating the strategic plan to multiple stakeholders Linking the strategic plan to operating performance Physician involvement in strategic planning Strategic planning initiatives across the continuum of care Hospital-physician integration models Factors affecting strategic planning in the post-acute care industry Jeffrey P. Harrison, PhD, FACHE, is an associate professor of health administration at the University of North Florida. Previously, Dr. Harrison held a wide range of managerial positions, including chief operating officer of a hospital, director of a large medical group, and leader at the health system level. He is founder and president of Harrison Consulting Group, Inc., a healthcare consulting firm.

Information Storage and Retrieval Systems

Advanced Oxidation Processes (AOPs) rely on the efficient generation of reactive radical species and are increasingly attractive options for water remediation from a wide variety of organic micropollutants of human health and/or environmental concern. Advanced Oxidation Processes for Water Treatment covers the key advanced oxidation processes developed for chemical contaminant destruction in polluted water sources, some of which have been implemented successfully at water treatment plants around the world. The book is structured in two sections; the first part is dedicated to the most relevant AOPs, whereas the topics covered in the second section include the photochemistry of chemical contaminants in the aquatic environment, advanced water treatment for water reuse, implementation of advanced treatment processes for drinking water production at a state-of-the art water treatment plant in Europe, advanced treatment of municipal and industrial wastewater, and green technologies for water remediation. The advanced

oxidation processes discussed in the book cover the following aspects: - Process principles including the most recent scientific findings and interpretation. - Classes of compounds suitable to AOP treatment and examples of reaction mechanisms. - Chemical and photochemical degradation kinetics and modelling. - Water quality impact on process performance and practical considerations on process parameter selection criteria. - Process limitations and byproduct formation and strategies to mitigate any potential adverse effects on the treated water quality. - AOP equipment design and economics considerations. - Research studies and outcomes. - Case studies relevant to process implementation to water treatment. - Commercial applications. - Future research needs. Advanced Oxidation Processes for Water Treatment presents the most recent scientific and technological achievements in process understanding and implementation, and addresses to anyone interested in water remediation, including water industry professionals, consulting engineers, regulators, academics, students. Editor: Mihaela I. Stefan - Trojan Technologies - Canada

The Engineering Design of Systems

Learn how to solve challenging machine learning problems with TensorFlow, Google's revolutionary new software library for deep learning. If you have some background in basic linear algebra and calculus, this practical book introduces machine-learning fundamentals by showing you how to design systems capable of detecting objects in images, understanding text, analyzing video, and predicting the properties of potential medicines. TensorFlow for Deep Learning teaches concepts through practical examples and helps you build knowledge of deep learning foundations from the ground up. It's ideal for practicing developers with experience designing software systems, and useful for scientists and other professionals familiar with scripting but not necessarily with designing learning algorithms. Learn TensorFlow fundamentals, including how to perform basic computation Build simple learning systems to understand their mathematical foundations Dive into fully connected deep networks used in thousands of applications Turn prototypes into high-quality models with hyperparameter optimization Process images with convolutional neural networks Handle natural language datasets with recurrent neural networks Use reinforcement learning to solve games such as tic-tac-toe Train deep networks with hardware including GPUs and tensor processing units

Information Retrieval Systems

Newly updated and revised, this popular text provides a solid introduction to the foundations of research methods, with the goal of enabling students and professionals in the field of applied linguistics to become not just casual consumers of research who passively read bits and pieces of a research article, but discerning consumers able to effectively use published research for practical purposes in educational settings. All issues important for understanding and using published research for these purposes are covered. Key principles are illustrated with research studies published in refereed journals across a wide spectrum of applied linguistics. Exercises throughout the text encourage readers to engage interactively with what they are reading at the point when the information is fresh in their minds. Changes in the second edition: new examples in chapter two

reflecting formatting changes made by ERIC major reordering in chapter four to better represent the sample types reorganization of chapters six and seven to enhance cohesion of the themes being discussed updated references and recommended reading lists in all chapters.

Survey of Advanced Microprocessors

At last – a new edition of the highly acclaimed book Clinical Trials in Psychiatry This book provides a concise but thorough overview of clinical trials in psychiatry, invaluable to those seeking solutions to numerous problems relating to design, methodology and analysis of such trials. Practical examples and applications are used to ground theory whenever possible. The Second Edition includes new information regarding: Recent important psychiatric trials More specific discussion of psychiatry in the USA and the particular problems of trials in the USA, including comments about the FDA (U.S. Food and Drug Administration) An extended chapter on meta-analysis Further discussion of sub-group analysis Special features include appendices outlining how to design and report clinical trials, what websites and software programs are appropriate and an extensive reference section. From the reviews of the First Edition: "Everitt & Wessely are to be congratulated on producing an excellent guide to help overcome the snags in clinical trial research. Clearly written and in an engrossing style, the book is likely to become a classic textbook on clinical trials, and not just in psychiatry. The authors' enthusiasm and grasp of clinical trial research make for a gripping and insightful readit is one of the very best books that has been written on clinical trials." THE BRITISH JOURNAL OF PSYCHIATRY "The experience of both authors in this area gives the book a very pragmatic approach grounded in reality, with theoretical overviews invariably being followed by practical examples and applications an invaluable companion to anyone involved in, or contemplating undertaking, clinical trials research." PSYCHOLOGICAL MEDICINE

Introduction to C++ for Financial Engineers

Contributions by Rick Graziani and Bob Vachon.

An Introduction to Database Systems

You can choose several data access frameworks when building Java enterprise applications that work with relational databases. But what about big data? This hands-on introduction shows you how Spring Data makes it relatively easy to build applications across a wide range of new data access technologies such as NoSQL and Hadoop. Through several sample projects, you'll learn how Spring Data provides a consistent programming model that retains NoSQL-specific features and capabilities, and helps you develop Hadoop applications across a wide range of use-cases such as data analysis, event stream processing, and workflow. You'll also discover the features Spring Data adds to Spring's existing JPA and JDBC support for writing RDBMS-based data access layers. Learn about Spring's template helper classes to simplify the use of database-specific functionality Explore Spring Data's repository abstraction and advanced query functionality Use Spring Data with Redis (key/value store), HBase (column-family), MongoDB (document database),

and Neo4j (graph database) Discover the GemFire distributed data grid solution Export Spring Data JPA-managed entities to the Web as RESTful web services Simplify the development of HBase applications, using a lightweight object-mapping framework Build example big-data pipelines with Spring Batch and Spring Integration

Responding to Climate Change in New York State

Music in Theory and Practice

How will governments and courts protect civil liberties in this new era of hacktivism? Ethical Hacking discusses the attendant moral and legal issues. The first part of the 21st century will likely go down in history as the era when ethical hackers opened governments and the line of transparency moved by force. One need only read the motto "we open governments" on the Twitter page for Wikileaks to gain a sense of the sea change that has occurred. Ethical hacking is the non-violent use of a technology in pursuit of a cause—political or otherwise—which is often legally and morally ambiguous. Hacktivists believe in two general but spirited principles: respect for human rights and fundamental freedoms, including freedom of expression and personal privacy; and the responsibility of government to be open, transparent and fully accountable to the public. How courts and governments will deal with hacking attempts which operate in a grey zone of the law and where different ethical views collide remains to be seen. What is undisputed is that Ethical Hacking presents a fundamental discussion of key societal questions. A fundamental discussion of key societal questions. This book is published in English. - La première moitié du XXIe siècle sera sans doute reconnue comme l'époque où le piratage éthique a ouvert de force les gouvernements, déplaçant les limites de la transparence. La page twitter de Wikileaks enchâsse cet ethos à même sa devise, « we open governments », et sa volonté d'être omniprésent. En parallèle, les grandes sociétés de technologie comme Apple se font compétition pour produire des produits de plus en plus sécuritaires et à protéger les données de leurs clients, alors même que les gouvernements tentent de limiter et de décrypter ces nouvelles technologies d'encryption. Entre-temps, le marché des vulnérabilités en matière de sécurité augmente à mesure que les experts en sécurité informatique vendent des vulnérabilités de logiciels des grandes technologies, dont Apple et Google, contre des sommes allant de 10 000 à 1,5 million de dollars. L'activisme en sécurité est à la hausse. Le piratage éthique est l'utilisation non-violence d'une technologie quelconque en soutien d'une cause politique ou autre qui est souvent ambigue d'un point de vue juridique et moral. Le hacking éthique peut désigner les actes de vérification de pénétration professionnelle ou d'experts en sécurité informatique, de même que d'autres formes d'actions émergentes, comme l'hacktivisme et la désobéissance civile en ligne. L'hacktivisme est une forme de piratage éthique, mais également une forme de militantisme des droits civils à l'ère numérique. En principe, les adeptes du hacktivisme croient en deux grands principes : le respect des droits de la personne et les libertés fondamentales, y compris la liberté d'expression et à la vie privée, et la responsabilité des gouvernements d'être ouverts, transparents et pleinement redevables au public. En pratique, toutefois, les antécédents comme les agendas des hacktivistes sont fort diversifiés. Il n'est

pas clair de quelle façon les tribunaux et les gouvernements traiteront des tentatives de piratage eu égard aux zones grises juridiques, aux approches éthiques conflictuelles, et compte tenu du fait qu'il n'existe actuellement, dans le monde, presque aucune exception aux provisions, en matière de cybercrime et de crime informatique, liées à la recherche sur la sécurité ou l'intérêt public. Il sera également difficile de déterminer le lien entre hacktivisme et droits civils. Ce livre est publié en anglais.

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION