

Filesize 23 10mb University Physics 13th Edition Solutions

This practical text contains fairly "traditional" coverage of data structures with a clear and complete use of algorithm analysis, and some emphasis on file processing techniques as relevant to modern programmers. It fully integrates OO programming with these topics, as part of the detailed presentation of OO programming itself. Chapter topics include lists, stacks, and queues; binary and general trees; graphs; file processing and external sorting; searching; indexing; and limits to computation. For programmers who need a good reference on data structures.

As the most popular and authoritative guide to recording Modern Recording Techniques provides everything you need to master the tools and day to day practice of music recording and production. From room acoustics and running a session to mic placement and designing a studio Modern Recording Techniques will give you a really good grounding in the theory and industry practice. Expanded to include the latest digital audio technology the 7th edition now includes sections on podcasting, new surround sound formats and HD and audio. If you are just starting out or looking for a step up in industry, Modern Recording Techniques provides an in depth excellent read- the must have book

Mastering Cloud Computing is designed for undergraduate students learning to develop cloud computing applications. Tomorrow's applications won't live on a single computer but will be deployed from and reside on a virtual server, accessible anywhere, any time. Tomorrow's application developers need to understand the requirements of building apps for these virtual systems, including concurrent programming, high-performance computing, and data-intensive systems. The book introduces the principles of distributed and parallel computing underlying cloud architectures and specifically focuses on virtualization, thread programming, task programming, and map-reduce programming. There are examples demonstrating all of these and more, with exercises and labs throughout. Explains how to make design choices and tradeoffs to consider when building applications to run in a virtual cloud environment Real-world case studies include scientific, business, and energy-efficiency considerations

The volume presents high quality papers presented at the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017). The book discusses recent trends in technology and advancement in MEMS and nanoelectronics, wireless communications, optical communication, instrumentation, signal processing, image processing, bioengineering, green energy, hybrid vehicles, environmental science, weather forecasting, cloud computing, renewable energy, RFID, CMOS sensors, actuators, transducers, telemetry systems, embedded systems, and sensor network applications. It includes original papers based on original theoretical, practical, experimental, simulations, development, application, measurement, and testing. The applications and solutions discussed in the

book will serve as a good reference material for future works.

Real World Adobe InDesign CC

Proceedings of the First International Conference on SCI 2016, Volume 1

Smart Computing and Informatics

ISC High Performance 2020 International Workshops, Frankfurt, Germany, June 21–25, 2020, Revised Selected Papers

Passive Circuit Analysis with LTspice®

Detecting Malware and Threats in Windows, Linux, and Mac Memory

This book covers elementary discrete mathematics for computer science and engineering. It emphasizes mathematical definitions and proofs as well as applicable methods. Topics include formal logic notation, proof methods; induction, well-ordering; sets, relations; elementary graph theory; integer congruences; asymptotic notation and growth of functions; permutations and combinations, counting principles; discrete probability. Further selected topics may also be covered, such as recursive definition and structural induction; state machines and invariants; recurrences; generating functions.

Need directions? Are you good at getting lost? Then GPS is just the technology you've dreamed of, and GPS For Dummies is what you need to help you make the most of it. If you have a GPS unit or plan to buy one, GPS For Dummies, 2nd Edition helps you compare GPS technologies, units, and uses. You'll find out how to create and use digital maps and learn about waypoints, tracks, coordinate systems, and other key point to using GPS technology. Get more from your GPS device by learning to use Web-hosted mapping services and even how to turn your cell phone or PDA into a GPS receiver. You'll also discover: Up-to-date information on the capabilities of popular handheld and automotive Global Positioning Systems How to read a map and how to get more from the free maps available online The capabilities and limitations of GPS technology, and how satellites and radio systems make GPS work How to interface your GPS receiver with your computer and what digital mapping software can offer Why a cell phone with GPS capability isn't the same as a GPS unit What can affect your GPS reading and how accurate it will be How to use Street Atlas USA, TopoFusion, Google Earth, and other tools Fun things to do with GPS, such as exploring topographical maps, aerial imagery, and the sport of geocaching Most GPS receivers do much more than their owners realize. With GPS For Dummies, 2nd Edition in hand, you'll venture forth with confidence!

This book constitutes the refereed post-conference proceedings of 10 workshops held at the 35th International ISC High Performance 2020 Conference, in Frankfurt, Germany, in June 2020: First Workshop on Compiler-assisted Correctness Checking and Performance Optimization for HPC (C3PO); First International Workshop on the Application of Machine Learning Techniques to Computational Fluid Dynamics Simulations and Analysis (CFDML); HPC I/O in the Data Center Workshop (HPC-IODC); First Workshop \Machine Learning on HPC Systems" (MLHPCS); First International Workshop on Monitoring and Data

Analytics (MODA); 15th Workshop on Virtualization in High-Performance Cloud Computing (VHPC). The 25 full papers included in this volume were carefully reviewed and selected. They cover all aspects of research, development, and application of large-scale, high performance experimental and commercial systems. Topics include high-performance computing (HPC), computer architecture and hardware, programming models, system software, performance analysis and modeling, compiler analysis and optimization techniques, software sustainability, scientific applications, deep learning.

Cloud Computing: Theory and Practice provides students and IT professionals with an in-depth analysis of the cloud from the ground up. Beginning with a discussion of parallel computing and architectures and distributed systems, the book turns to contemporary cloud infrastructures, how they are being deployed at leading companies such as Amazon, Google and Apple, and how they can be applied in fields such as healthcare, banking and science. The volume also examines how to successfully deploy a cloud application across the enterprise using virtualization, resource management and the right amount of networking support, including content delivery networks and storage area networks. Developers will find a complete introduction to application development provided on a variety of platforms. Learn about recent trends in cloud computing in critical areas such as: resource management, security, energy consumption, ethics, and complex systems Get a detailed hands-on set of practical recipes that help simplify the deployment of a cloud based system for practical use of computing clouds along with an in-depth discussion of several projects Understand the evolution of cloud computing and why the cloud computing paradigm has a better chance to succeed than previous efforts in large-scale distributed computing

Advanced Operating Systems and Kernel Applications: Techniques and Technologies
Theory and Practice

Image Sensors and Signal Processing for Digital Still Cameras

File System Forensic Analysis

Mathematics for Computer Science

GPU Parallel Program Development Using CUDA

This volume contains 74 papers presented at SCI 2016: First International Conference on Smart Computing and Informatics. The conference was held during 3-4 March 2017, Visakhapatnam, India and organized communally by ANITS, Visakhapatnam and supported technically by CSI Division V - Education and Research and PRF, Vizag. This volume contains papers mainly focused on applications of advanced intelligent techniques to video processing, medical imaging, machine learning, sensor technologies, and network security.

IBM Power E1080 Technical Overview and Introduction IBM Redbooks

Comprehensive treatment focuses on creation of efficient data structures and algorithms and selection or design of data structure best suited to specific problems. This edition uses Java as the programming language.

Shrinking pixel sizes along with improvements in image sensors, optics, and electronics have elevated DSCs to levels of performance that match, and have the potential to surpass, that of silver-halide film cameras. *Image Sensors and Signal Processing for Digital Still Cameras* captures the current state of DSC image acquisition and signal processing technology and takes an all-inclusive look at the field, from the history of DSCs to future possibilities. The first chapter outlines the evolution of DSCs, their basic structure, and their major application classes. The next few chapters discuss high-quality optics that meet the requirements of better image sensors, the basic functions and performance parameters of image sensors, and detailed discussions of both CCD and CMOS image sensors. The book then discusses how color theory affects the uses of DSCs, presents basic image processing and camera control algorithms and examples of advanced image processing algorithms, explores the architecture and required performance of signal processing engines, and explains how to evaluate image quality for each component described. The book closes with a look at future technologies and the challenges that must be overcome to realize them. With contributions from many active DSC experts, *Image Sensors and Image Processing for Digital Still Cameras* offers unparalleled real-world coverage and opens wide the door for future innovation.

Modern Recording Techniques

IBM Power E1080 Technical Overview and Introduction

Reproducibility and Replicability in Science

Programming PHP

EOS Data Products Handbook

Powerful and Scalable Data Storage

A variety of programming models relevant to scientists explained, with an emphasis on how programming constructs map to parts of the computer. What makes computer programs fast or

slow? To answer this question, we have to get behind the abstractions of programming languages and look at how a computer really works. This book examines and explains a variety of scientific programming models (programming models relevant to scientists) with an emphasis on how programming constructs map to different parts of the computer's architecture. Two themes emerge: program speed and program modularity. Throughout this book, the premise is to "get under the hood," and the discussion is tied to specific programs. The book digs into linkers, compilers, operating systems, and computer architecture to understand how the different parts of the computer interact with programs. It begins with a review of C/C++ and explanations of how libraries, linkers, and Makefiles work. Programming models covered include Pthreads, OpenMP, MPI, TCP/IP, and CUDA. The emphasis on how computers work leads the reader into computer architecture and occasionally into the operating system kernel. The operating system studied is Linux, the preferred platform for scientific computing. Linux is also open source, which allows users to peer into its inner workings. A brief appendix provides a useful table of machines used to time programs. The book's website (<https://github.com/divakarvi/bk-spc>) has all the programs described in the book as well as a link to the html text.

This IBM® Redbooks® publication provides performance tuning tips and best practices for IBM Business Process Manager (IBM BPM) V8.5.5 (all editions) and IBM Business Monitor V8.5.5. These products represent an integrated development and runtime environment based on a key set of service-oriented architecture (SOA) and business process management (BPM) technologies. Such technologies include Service Component Architecture (SCA), Service Data Object (SDO), Business Process Execution Language (BPEL) for web services, and Business Processing Modeling Notation (BPMN). Both IBM Business Process Manager and Business Monitor build on the core capabilities of the IBM WebSphere® Application Server infrastructure. As a result, Business Process Manager solutions benefit from tuning, configuration, and best practices information for WebSphere Application Server and the corresponding platform Java virtual machines (JVMs). This book targets a wide variety of groups, both within IBM (development, services, technical sales, and others) and customers. For customers who are either considering or are in the early stages of

implementing a solution incorporating Business Process Manager and Business Monitor, this document proves a useful reference. The book is useful both in terms of best practices during application development and deployment and as a reference for setup, tuning, and configuration information. This book talks about many issues that can influence performance of each product and can serve as a guide for making rational first choices in terms of configuration and performance settings. Similarly, customers who already implemented a solution with these products can use the information presented here to gain insight into how their overall integrated solution performance can be improved. By its very nature, Unix is a " power tools " environment. Even beginning Unix users quickly grasp that immense power exists in shell programming, aliases and history mechanisms, and various editing tools. Nonetheless, few users ever really master the power available to them with Unix. There is just too much to learn! Unix Power Tools, Third Edition, literally contains thousands of tips, scripts, and techniques that make using Unix easier, more effective, and even more fun. This book is organized into hundreds of short articles with plenty of references to other sections that keep you flipping from new article to new article. You'll find the book hard to put down as you uncover one interesting tip after another. With the growing popularity of Linux and the advent of Mac OS X, Unix has metamorphosed into something new and exciting. With Unix no longer perceived as a difficult operating system, more and more users are discovering its advantages for the first time. The latest edition of this best-selling favorite is loaded with advice about almost every aspect of Unix, covering all the new technologies that users need to know. In addition to vital information on Linux, Mac OS X, and BSD, Unix Power Tools, Third Edition, now offers more coverage of bcash, zsh, and new shells, along with discussions about modern utilities and applications. Several sections focus on security and Internet access, and there is a new chapter on access to Unix from Windows, addressing the heterogeneous nature of systems today. You'll also find expanded coverage of software installation and packaging, as well as basic information on Perl and Python. The book's accompanying web site provides some of the best software available to Unix users, which you can download and add to your own set of power tools. Whether you are a

newcomer or a Unix power user, you'll find yourself thumbing through the gold mine of information in this new edition of Unix Power Tools to add to your store of knowledge. Want to try something new? Check this book first, and you're sure to find a tip or trick that will prevent you from learning things the hard way.

The third edition of Fundamentals of Information Technology is a 'must have' book not only for BCA and MBA students, but also for all those who want to strengthen their knowledge of computers. The additional chapter on MS Office is a comprehensive study on MS Word, MS Excel and other components of the package. This book is packed with expert advice from eminent IT professionals, in-depth analyses and practical examples. It presents a detailed functioning of hardware components besides covering the software concepts. A broad overview of Computer architecture, Data representation in the computer, Operating systems, Database management systems, Programming languages, etc., has also been included. An additional chapter on Mobile Computing and other state-of-the-art innovations in the IT world have been incorporated. Not only that, the latest Internet technologies have also been covered in detail. One should use this book to acquire computer literacy in terms of how data is represented in a computer, how hardware devices are integrated to get the desired results, how the computer can be networked for interchanging data and establishing communication. Each chapter is followed by a number of review questions.

Cloud Computing

Futuristic Trends in Network and Communication Technologies

Fundamentals of Information Technology

MongoDB: The Definitive Guide

Data Structures and Algorithm Analysis in C++, Third Edition

Techniques and Technologies

Description of the data products that will be produced from the named scientific missions.

Manage the huMONGOus amount of data collected through your web application with MongoDB. This authoritative introduction—written by a core contributor to the project—shows you the many advantages of using document-oriented databases, and demonstrates how this reliable, high-performance system allows for almost infinite horizontal scalability.

This updated second edition provides guidance for database developers, advanced configuration for system administrators, and an overview of the concepts and use cases for other people on your project. Ideal for NoSQL newcomers and experienced MongoDB users alike, this guide provides numerous real-world schema design examples. Get started with MongoDB core concepts and vocabulary Perform basic write operations at different levels of safety and speed Create complex queries, with options for limiting, skipping, and sorting results Design an application that works well with MongoDB Aggregate data, including counting, finding distinct values, grouping documents, and using MapReduce Gather and interpret statistics about your collections and databases Set up replica sets and automatic failover in MongoDB Use sharding to scale horizontally, and learn how it impacts applications Delve into monitoring, security and authentication, backup/restore, and other administrative tasks

Annotation The definitive InDesign resource allows you to produce great content for print or digital publishing.**InDesign Creative Cloud is an impressive update. This guide provides our most complete coverage of the new features for intermediate and advanced users, whether they're publishing to an iPad, mobile phone, or traditional print publication.*The book that the Adobe InDesign product team uses for their reference.*Authors Kvern/Blatner/Bringhurst are 'the InDesign experts.' All are visible and extremely active in the InDesign community. Sharpen your InDesign skills with this definitive resource created specifically for design professionals who need to layout out, proof, export, and publish pages with Adobe InDesign Creative Cloud.Complete coverage of InDesign CC's new features and enhancements includes: improved epub exporting, new font menus, ability to generate and edit high quality QR code graphics, new document dialog box with preview option, and much more. Real World Adobe InDesign is brimming with insightful advice, illustrations, and shortcuts that will have you quickly and professionally producing your work in no time. This is the book that experts open to find real answers to their questions about InDesign. It's written in a friendly, visual style that offers accurate information and creative inspiration for intermediate to expert users.

The Definitive Guide to File System Analysis: Key Concepts and Hands-on Techniques Most digital evidence is stored within the computer's file system, but understanding how file systems work is one of the most technically challenging concepts for a digital investigator because there exists little documentation. Now, security expert Brian Carrier has written the definitive reference for everyone who wants to understand and be able to testify about how file system analysis is performed. Carrier begins with an overview of investigation and computer foundations and then gives an authoritative, comprehensive, and illustrated overview of contemporary volume and file systems: Crucial information for discovering hidden evidence, recovering deleted data, and validating your tools. Along the way, he describes data structures, analyzes example disk images, provides advanced investigation scenarios, and uses today's most valuable open source

file system analysis tools—including tools he personally developed. Coverage includes Preserving the digital crime scene and duplicating hard disks for "dead analysis" Identifying hidden data on a disk's Host Protected Area (HPA) Reading source data: Direct versus BIOS access, dead versus live acquisition, error handling, and more Analyzing DOS, Apple, and GPT partitions; BSD disk labels; and Sun Volume Table of Contents using key concepts, data structures, and specific techniques Analyzing the contents of multiple disk volumes, such as RAID and disk spanning Analyzing FAT, NTFS, Ext2, Ext3, UFS1, and UFS2 file systems using key concepts, data structures, and specific techniques Finding evidence: File metadata, recovery of deleted files, data hiding locations, and more Using The Sleuth Kit (TSK), Autopsy Forensic Browser, and related open source tools When it comes to file system analysis, no other book offers this much detail or expertise. Whether you're a digital forensics specialist, incident response team member, law enforcement officer, corporate security specialist, or auditor, this book will become an indispensable resource for forensic investigations, no matter what analysis tools you use.

National Library of Medicine Audiovisuals Catalog

GPS For Dummies

Python Scripting for Computational Science

Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017)

A Practical Introduction to Data Structures and Algorithm Analysis

The Art of Memory Forensics

Explains how to use the open source scripting language to process and validate forms, track sessions, generate dynamic images, create PDF files, parse XML files, create secure scripts, and write C language extensions.

Computer Networks: A Systems Approach, Fifth Edition, explores the key principles of computer networking, with examples drawn from the real world of network and protocol design. Using the Internet as the primary example, this best-selling and classic textbook explains various protocols and networking technologies. The systems-oriented approach encourages students to think about how individual network components fit into a larger, complex system of interactions. This book has a completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including P2P, wireless, network security, and network applications such as e-mail and the Web, IP telephony and video streaming, and peer-to-peer file sharing. There is now increased focus on application layer issues where innovative and exciting research and design is currently the center of attention. Other topics include network design and architecture; the ways users can connect to a network; the concepts of switching, routing, and internetworking; end-to-end protocols; congestion control and resource allocation; and end-to-end data. Each chapter includes a problem statement, which introduces issues to be examined; shaded sidebars that elaborate on a topic or introduce a related advanced topic; What's Next? discussions that deal with emerging issues in research, the commercial world, or society; and exercises. This book

is written for graduate or upper-division undergraduate classes in computer networking. It will also be useful for industry professionals retraining for network-related assignments, as well as for network practitioners seeking to understand the workings of network protocols and the big picture of networking. Completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including P2P, wireless, security, and applications Increased focus on application layer issues where innovative and exciting research and design is currently the center of attention Free downloadable network simulation software and lab experiments manual available

This textbook covers the material for an undergraduate linear algebra course: vectors, matrices, linear transformations, computational techniques, geometric constructions, and theoretical foundations. The explanations are given in an informal conversational tone. The book also contains 100+ problems and exercises with answers and solutions. A special feature of this textbook is the prerequisites chapter that covers topics from high school math, which are necessary for learning linear algebra. The presence of this chapter makes the book suitable for beginners and the general audience-readers need not be math experts to read this book. Another unique aspect of the book are the applications chapters (Ch 7, 8, and 9) that discuss applications of linear algebra to engineering, computer science, economics, chemistry, machine learning, and even quantum mechanics.

This IBM® Redpaper® publication provides a broad understanding of a new architecture of the IBM Power® E1080 (also known as the Power E1080) server that supports IBM AIX®, IBM i, and selected distributions of Linux operating systems. The objective of this paper is to introduce the Power E1080, the most powerful and scalable server of the IBM Power portfolio, and its offerings and relevant functions: Designed to support up to four system nodes and up to 240 IBM Power10™ processor cores The Power E1080 can be initially ordered with a single system node or two system nodes configuration, which provides up to 60 Power10 processor cores with a single node configuration or up to 120 Power10 processor cores with a two system nodes configuration. More support for a three or four system nodes configuration is to be added on December 10, 2021, which provides support for up to 240 Power10 processor cores with a full combined four system nodes server. Designed to supports up to 64 TB memory The Power E1080 can be initially ordered with the total memory RAM capacity up to 8 TB. More support is to be added on December 10, 2021 to support up to 64 TB in a full combined four system nodes server. Designed to support up to 32 Peripheral Component Interconnect® (PCIe) Gen 5 slots in a full combined four system nodes server and up to 192 PCIe Gen 3 slots with expansion I/O drawers The Power E1080 supports initially a maximum of two system nodes; therefore, up to 16 PCIe Gen 5 slots, and up to 96 PCIe Gen 3 slots with expansion I/O drawer. More support is to be added on December 10, 2021, to support up to 192 PCIe Gen 3 slots with expansion I/O drawers. Up to over 4,000 directly attached serial-attached SCSI (SAS) disks or solid-state drives (SSDs) Up to 1,000 virtual machines (VMs) with logical partitions (LPARs) per system System control unit, providing redundant system master Flexible Service Processor (FSP) Supports IBM Power System Private Cloud Solution with Dynamic Capacity This publication is for professionals who want to acquire a better understanding of Power servers. The intended audience includes the following roles: Customers Sales and marketing professionals Technical support professionals IBM Business Partners Independent software vendors (ISVs) This paper does not replace the current marketing materials and configuration tools. It is intended as an extra source of information that, together with existing sources, can be used to enhance your knowledge of IBM server solutions.

Fundamentals of Multimedia

Medical and Biological Image Analysis

Foundations and Applications Programming

IBM Business Process Manager V8.5 Performance Tuning and Best Practices

Unix Power Tools

A Systems Approach

This book shows readers how to learn analog electronics by simulating circuits. Readers will be enabled to master basic electric circuit analysis, as an essential component of their professional education. The author's approach enables readers to learn theory as needed, then immediately apply it to the simulation of circuits based on that theory, while using the resulting tables, graphs and waveforms to gain a deeper insight into the theory, as well as where theory and practice diverge!

This book presents high-quality peer-reviewed papers from the International Conference on Advanced Communication and Computational Technology (ICACCT) 2019 held at the National Institute of Technology, Kurukshetra, India. The contents are broadly divided into four parts: (i) Advanced Computing, (ii) Communication and Networking, (iii) VLSI and Embedded Systems, and (iv) Optimization Techniques. The major focus is on emerging computing technologies and their applications in the domain of communication and networking. The book will prove useful for engineers and researchers working on physical, data link and transport layers of communication protocols. Also, this will be useful for industry professionals interested in manufacturing of communication devices, modems, routers etc. with enhanced computational and data handling capacities. Comprehensive treatment focuses on creation of efficient data structures and algorithms and selection or design of data structure best suited to specific problems. This edition uses C++ as the programming language.

Memory forensics provides cutting edge technology to help investigate digital attacks Memory forensics is the art of analyzing computer memory (RAM) to solve digital crimes. As a follow-up to the best seller Malware Analyst's Cookbook, experts in the fields of malware, security, and digital forensics bring you a step-by-step guide to memory forensics—now the most sought after skill in the digital forensics and incident response fields. Beginning with introductory concepts and moving toward the advanced, The Art of Memory Forensics: Detecting Malware and Threats in Windows, Linux, and Mac Memory is based on a five day training course that the authors have presented to hundreds of students. It is the only book on the market that focuses exclusively on memory forensics and how to deploy such techniques properly. Discover memory forensics techniques: How volatile memory analysis improves digital investigations Proper investigative steps for detecting stealth malware and advanced threats How to use free, open source tools for conducting thorough memory forensics Ways to acquire memory from suspect systems in a forensically sound manner The next era of malware and security breaches are more sophisticated and targeted, and the volatile memory of a computer is often overlooked or destroyed as part of the incident response process.

The Art of Memory Forensics explains the latest technological innovations in digital forensics to help bridge this gap. It covers the most popular and recently released versions of Windows, Linux, and Mac, including both the 32 and 64-bit editions.

Select Proceedings of ICACCT 2019

High Performance Computing

Computer Networks

First International Conference, FTNCT 2018, Solan, India, February 9–10, 2018, Revised Selected Papers

IBM Communications Server for Data Center Deployment V7.0

This textbook introduces the “Fundamentals of Multimedia”, addressing real issues commonly faced in the workplace. The essential concepts are explained in a practical way to enable students to apply their existing skills to address problems in multimedia. Fully revised and updated, this new edition now includes coverage of such topics as 3D TV, social networks, high-efficiency video compression and conferencing, wireless and mobile networks, and their attendant technologies. Features: presents an overview of the key concepts in multimedia, including color science; reviews lossless and lossy compression methods for image, video and audio data; examines the demands placed by multimedia communications on wired and wireless networks; discusses the impact of social media and cloud computing on information sharing and on multimedia content search and retrieval; includes study exercises at the end of each chapter; provides supplementary resources for both students and instructors at an associated website.

The massive growth of the Internet has made an enormous amount of information available to us. However, it is becoming very difficult for users to acquire an applicable one. Therefore, some techniques such as information filtering have been introduced to address this issue. Recommender systems filter information that is useful to a user from a large amount of information. Many e-commerce sites use recommender systems to filter specific information that users want out of an overload of information [2]. For example, Amazon.com is a good example of the success of recommender systems [1]. Over the past several years, a considerable amount of research has been conducted on recommendation systems. In general, the usefulness of the recommendation is measured based on its accuracy [3]. Although a high recommendation accuracy can indicate a user's favorite items, there is a fault in that only similar items will be recommended. Several studies have reported that users might not be satisfied with a recommendation even though it exhibits high recommendation accuracy [4]. For this reason, we consider that a recommendation having only accuracy is unsatisfactory. The serendipity of a recommendation is an important element when considering a user's long-term profits. A recommendation that brings serendipity to users would solve the problem of “user weariness” and would lead to exploitation of users' tastes. The viewpoint of the diversity of the recommendation as well

as its accuracy should be required for future recommender systems.

This IBM® Redpaper™ publication will guide the user through the installation, configuration, and administration of IBM Communications Server for Data Center Deployment V7.0. It is not intended to be all-inclusive. Rather, it builds on previous publications referenced throughout the document. The focus is on the consolidation of Systems Network Architecture (SNA) resources, key features and functions available in IBM Communications Server for Data Center Deployment, and the Web Administration package specific to the Linux platform.

GPU Parallel Program Development using CUDA teaches GPU programming by showing the differences among different families of GPUs. This approach prepares the reader for the next generation and future generations of GPUs. The book emphasizes concepts that will remain relevant for a long time, rather than concepts that are platform-specific. At the same time, the book also provides platform-dependent explanations that are as valuable as generalized GPU concepts. The book consists of three separate parts; it starts by explaining parallelism using CPU multi-threading in Part I. A few simple programs are used to demonstrate the concept of dividing a large task into multiple parallel sub-tasks and mapping them to CPU threads. Multiple ways of parallelizing the same task are analyzed and their pros/cons are studied in terms of both core and memory operation. Part II of the book introduces GPU massive parallelism. The same programs are parallelized on multiple Nvidia GPU platforms and the same performance analysis is repeated. Because the core and memory structures of CPUs and GPUs are different, the results differ in interesting ways. The end goal is to make programmers aware of all the good ideas, as well as the bad ideas, so readers can apply the good ideas and avoid the bad ideas in their own programs. Part III of the book provides pointer for readers who want to expand their horizons. It provides a brief introduction to popular CUDA libraries (such as cuBLAS, cuFFT, NPP, and Thrust), the OpenCL programming language, an overview of GPU programming using other programming languages and API libraries (such as Python, OpenCV, OpenGL, and Apple's Swift and Metal,) and the deep learning library cuDNN.

Towards Sustainable Society on Ubiquitous Networks

The Scientist and Engineer's Guide to Digital Signal Processing

The THEMIS Mission

Advances in Communication and Computational Technology

Mastering Cloud Computing

An Interactive Approach

This book deals with medical image analysis methods. In particular, it contains two significant chapters on image segmentation as well as some selected examples of the application of image analysis and processing methods. Despite the significant development

of information technology methods used in modern image analysis and processing algorithms, the segmentation process remains open. This is mainly due to intra-patient variability and/or scene diversity. Segmentation is equally difficult in the case of ultrasound imaging and depends on the location of the probe or the contact force. Regardless of the imaging method, segmentation must be tailored for a specific application in almost every case. These types of application areas for various imaging methods are included in this book.

"This book discusses non-distributed operating systems that benefit researchers, academicians, and practitioners"--Provided by publisher.

J.L. Burch·V. Angelopoulos Originally published in the journal Space Science Reviews, Volume 141, Nos 1–4, 1–3. DOI: 10.1007/s11214-008-9474-5 © Springer Science+Business Media B.V. 2008 The Earth, like all the other planets, is continuously bombarded by the solar wind, which is variable on many time scales owing to its connection to the activity of the Sun. But the Earth is unique among planets because its atmosphere, magnetic field, and rotation rates are each significant, though not dominant, players in the formation of its magnetosphere and its reaction to solar-wind inputs. An intriguing fact is that no matter what the time scale of solar-wind variations, the Earth's response has a definite pattern lasting a few hours. Known as a magnetospheric substorm, the response involves a build-up, a crash, and a recovery. The build-up (known as the growth phase) occurs because of an interlinking of the geomagnetic field and the solar-wind magnetic field known as magnetic reconnection, which leads to storage of increasing amounts of magnetic energy and stress in the tail of the magnetosphere and lasts about a half hour. The crash (known as the expansion phase) occurs when the increased magnetic energy and stresses are impulsively relieved, the current system that supports the stretched out magnetic tail is diverted into the ionosphere, and bright, dynamic displays of the aurora appear in the upper atmosphere. The expansion and subsequent recovery phases result from a second magnetic reconnection event that decouples the solar-wind and geomagnetic fields. Often calculus and mechanics are taught as separate subjects. It shouldn't be like that. Learning calculus without mechanics is incredibly boring. Learning mechanics without

calculus is missing the point. This textbook integrates both subjects and highlights the profound connections between them. This is the deal. Give me 350 pages of your attention, and I'll teach you everything you need to know about functions, limits, derivatives, integrals, vectors, forces, and accelerations. This book is the only math book you'll need for the first semester of undergraduate studies in science. With concise, jargon-free lessons on topics in math and physics, each section covers one concept at the level required for a first-year university course. Anyone can pick up this book and become proficient in calculus and mechanics, regardless of their mathematical background.

Scientific Programming and Computer Architecture

Data Structures and Algorithm Analysis in Java, Third Edition

No bullshit guide to math and physics

The 8th IFIP Conference on e-Business, e-Services, and e-Society (I3E 2008), September 24 - 26, 2008, Tokyo, Japan

No Bullshit Guide to Linear Algebra

One of the pathways by which the scientific community confirms the validity of a new scientific discovery is by repeating the research that produced it. When a scientific effort fails to independently confirm the computations or results of a previous study, some fear that it may be a symptom of a lack of rigor in science, while others argue that such an observed inconsistency can be an important precursor to new discovery. Concerns about reproducibility and replicability have been expressed in both scientific and popular media. As these concerns came to light, Congress requested that the National Academies of Sciences, Engineering, and Medicine conduct a study to assess the extent of issues related to reproducibility and replicability and to offer recommendations for improving rigor and transparency in scientific research. Reproducibility and Replicability in Science defines reproducibility and replicability and examines the factors that may lead to non-reproducibility and non-replicability in research. Unlike the typical expectation of reproducibility between two computations, expectations about replicability are more nuanced, and in some cases a lack of replicability can aid the process of scientific discovery. This report provides recommendations to researchers, academic institutions, journals, and funders on steps they can take to improve reproducibility and replicability in science.

Scripting with Python makes you productive and increases the reliability of your scientific work. Here, the author teaches you how to develop tailored, flexible, and efficient working environments built from small programs

(scripts) written in Python. The focus is on examples and applications of relevance to computational science: gluing existing applications and tools, e.g. for automating simulation, data analysis, and visualization; steering simulations and computational experiments; equipping programs with graphical user interfaces; making computational Web services; creating interactive interfaces with a Maple/Matlab-like syntax to numerical applications in C/C++ or Fortran; and building flexible object-oriented programming interfaces to existing C/C++ or Fortran libraries.

This book constitutes the refereed proceedings of the First International Conference on Futuristic Trends in Network and Communication Technologies, FTNCT 2018, held in Solan, India, in February 2018. The 37 revised full papers presented were carefully reviewed and selected from 239 submissions. The prime aim of the conference is to invite researchers from different domains of network and communication technologies to a single platform to showcase their research ideas. The selected papers are organized in topical sections on communication technologies, Internet of Things (IoT), network technologies, and wireless networks.