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ELAINE EMMALEE

2012-2013 UNCG Graduate School Bulletin

UNCG Graduate School
The last few decades have seen the digital transformation of healthcare, with health informaticians taking the lead in innovations which have enabled the sector to evolve from rudimentary computer based records to large-scale systems allowing for intra-organisational, national and even international communication and information exchange. Establishing and maintaining strong partnerships between the healthcare community, government, universities and industry is integral to

supporting these advances. This book presents 24 selected papers from the 25th Australian National Health Informatics Conference (HIC 2017), held in Brisbane, Australia, in August 2017. The theme of HIC 2017 is Integrating and Connecting Care, and the conference provides the ideal professional and social environment for clinicians, researchers, health IT professionals, industry and consumers to integrate, educate and share their knowledge and debate current and future health systems. The papers in the book reflect the theme of the conference, highlighting the cutting-edge research

evidence, technology updates and innovations crucial to the digital transformation of the healthcare sector. Health informatics and e-health play a central role in connecting information systems, being smart with data, and enhancing both practitioner and consumer experience in healthcare interactions, and the book will be of interest to researchers and practitioners alike.

Autonomic Network Management Principles Prentice Hall Professional
Autonomic networking aims to solve the mounting problems created by increasingly complex networks, by

enabling devices and service-providers to decide, preferably without human intervention, what to do at any given moment, and ultimately to create self-managing networks that can interface with each other, adapting their behavior to provide the best service to the end-user in all situations. This book gives both an understanding and an assessment of the principles, methods and architectures in autonomous network management, as well as lessons learned from, the ongoing initiatives in the field. It includes contributions from industry groups at Orange Labs, Motorola, Ericsson, the ANA EU Project and leading universities. These groups all provide chapters examining the international research projects to which they are contributing, such as the EU Autonomic Network Architecture Project and Ambient Networks EU Project, reviewing current developments and demonstrating how autonomic management principles are used to define new architectures, models, protocols, and mechanisms for future network equipment. Provides reviews of cutting-edge approaches to the management of complex telecommunications, sensors,

etc. networks based on new autonomic approaches. This enables engineers to use new autonomic techniques to solve complex distributed problems that are not possible or easy to solve with existing techniques. Discussion of FOCAL, a semantically rich network architecture for coordinating the behavior of heterogeneous and distributed computing resources. This provides vital information, since the data model holds much of the power in an autonomic system, giving the theory behind the practice, which will enable engineers to create their own solutions to network management problems. Real case studies from the groups in industry and academia who work with this technology. These allow engineers to see how autonomic networking is implemented in a variety of scenarios, giving them a solid grounding in applications and helping them generate their own solutions to real-world problems.

Object-oriented Programming in Python Prentice Hall

This book gathers papers presented at the 22nd International Conference on Interactive Collaborative Learning (ICL2019), which was held in Bangkok,

Thailand, from 25 to 27 September 2019. Covering various fields of e-learning and distance learning, course and curriculum development, knowledge management and learning, real-world learning experiences, evaluation and outcomes assessment, computer-aided language learning, vocational education development and technical teacher training, the contributions focus on innovative ways in which higher education can respond to the real-world challenges related to the current transformation in the development of education. Since it was established, in 1998, the ICL conference has been devoted to new approaches in learning with a focus on collaborative learning. Today, it is a forum for sharing trends and research findings as well as presenting practical experiences in learning and engineering pedagogy. The book appeals to policymakers, academics, educators, researchers in pedagogy and learning theory, school teachers, and other professionals in the learning industry, and further and continuing education.

TCP/IP Sockets in C# Springer Nature
An overview of the programming

language's fundamentals covers syntax, initialization, implementation, classes, error handling, objects, applets, multiple threads, projects, and network programming.

Learn Java 17 Programming Pearson Education

Answering the need for an accessible overview of the field, this text/reference presents a manageable introduction to both the theoretical and practical aspects of computer networks and network programming. Clearly structured and easy to follow, the book describes cutting-edge developments in network architectures, communication protocols, and programming techniques and models, supported by code examples for hands-on practice with creating network-based applications. Features: presents detailed coverage of network architectures; gently introduces the reader to the basic ideas underpinning computer networking, before gradually building up to more advanced concepts; provides numerous step-by-step descriptions of practical examples; examines a range of network programming techniques; reviews network-based data storage and

multimedia transfer; includes an extensive set of practical code examples, together with detailed comments and explanations.

Programming Linux Hacker Tools

Uncovered: Exploits, Backdoors, Scanners, Sniffers, Brute-Forcers, Rootkits Academic Press

This volume focuses on the underlying sockets class, one of the basis for learning about networks in any programming language. By learning to write simple client and server programs that use TCP/IP, readers can then realize network routing, framing, error detection and correction, and performance.

Foundations of Python Network Programming Packt Publishing Ltd

An Introduction to Programming by the Inventor of C++ Preparation for Programming in the Real World The book assumes that you aim eventually to write non-trivial programs, whether for work in software development or in some other technical field. Focus on Fundamental Concepts and Techniques The book explains fundamental concepts and techniques in greater depth than traditional introductions. This approach will give you a solid foundation for writing

useful, correct, maintainable, and efficient code. Programming with Today's C++ (C++11 and C++14) The book is an introduction to programming in general, including object-oriented programming and generic programming. It is also a solid introduction to the C++ programming language, one of the most widely used languages for real-world software. The book presents modern C++ programming techniques from the start, introducing the C++ standard library and C++11 and C++14 features to simplify programming tasks. For Beginners—And Anyone Who Wants to Learn Something New The book is primarily designed for people who have never programmed before, and it has been tested with many thousands of first-year university students. It has also been extensively used for self-study. Also, practitioners and advanced students have gained new insight and guidance by seeing how a master approaches the elements of his art. Provides a Broad View The first half of the book covers a wide range of essential concepts, design and programming techniques, language features, and libraries. Those will enable you to write programs involving input,

output, computation, and simple graphics. The second half explores more specialized topics (such as text processing, testing, and the C programming language) and provides abundant reference material. Source code and support supplements are available from the author's website.

Advanced Techniques for Java Developers
CRC Press

A comprehensive guide to get started with Java and gain insights into major concepts such as object-oriented, functional, and reactive programming Key Features Strengthen your knowledge of important programming concepts and the latest features in Java Explore core programming topics including GUI programming, concurrency, and error handling Learn the idioms and best practices for writing high-quality Java code Book Description Java is one of the preferred languages among developers, used in everything right from smartphones, and game consoles to even supercomputers, and its new features simply add to the richness of the language. This book on Java programming begins by helping you learn how to install the Java Development Kit. You will then focus on understanding object-oriented

programming (OOP), with exclusive insights into concepts like abstraction, encapsulation, inheritance, and polymorphism, which will help you when programming for real-world apps. Next, you'll cover fundamental programming structures of Java such as data structures and algorithms that will serve as the building blocks for your apps. You will also delve into core programming topics that will assist you with error handling, debugging, and testing your apps. As you progress, you'll move on to advanced topics such as Java libraries, database management, and network programming, which will hone your skills in building professional-grade apps. Further on, you'll understand how to create a graphic user interface using JavaFX and learn to build scalable apps by taking advantage of reactive and functional programming. By the end of this book, you'll not only be well versed with Java 10, 11, and 12, but also gain a perspective into the future of this language and software development in general. What you will learn Learn and apply object-oriented principles Gain insights into data structures and understand how they are used in Java

Explore multithreaded, asynchronous, functional, and reactive programming Add a user-friendly graphic interface to your application Find out what streams are and how they can help in data processing Discover the importance of microservices and use them to make your apps robust and scalable Explore Java design patterns and best practices to solve everyday problems Learn techniques and idioms for writing high-quality Java code Who this book is for Students, software developers, or anyone looking to learn new skills or even a language will find this book useful. Although this book is for beginners, professional programmers can benefit from it too. Previous knowledge of Java or any programming language is not required.

Thinking in Java Springer Science & Business Media

This handbook introduces the basic principles and fundamentals of cyber security towards establishing an understanding of how to protect computers from hackers and adversaries. The highly informative subject matter of this handbook, includes various concepts, models, and terminologies along with

examples and illustrations to demonstrate substantial technical details of the field. It motivates the readers to exercise better protection and defense mechanisms to deal with attackers and mitigate the situation. This handbook also outlines some of the exciting areas of future research where the existing approaches can be implemented. Exponential increase in the use of computers as a means of storing and retrieving security-intensive information, requires placement of adequate security measures to safeguard the entire computing and communication scenario. With the advent of Internet and its underlying technologies, information security aspects are becoming a prime concern towards protecting the networks and the cyber ecosystem from variety of threats, which is illustrated in this handbook. This handbook primarily targets professionals in security, privacy and trust to use and improve the reliability of businesses in a distributed manner, as well as computer scientists and software developers, who are seeking to carry out research and develop software in information and cyber security. Researchers and advanced-level students

in computer science will also benefit from this reference.

Network World Springer Nature

For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce.

Issues in Informing Science &

Information Technology, Volume 9

(2012) Springer Science & Business Media Power up your network applications with Python programming Key Features Master Python skills to develop powerful network applications Grasp the fundamentals and functionalities of SDN Design multi-threaded, event-driven architectures for echo and chat servers Book Description This Learning Path highlights major aspects of Python network programming such as writing simple networking clients, creating and deploying SDN and NFV systems, and extending your network with

Mininet. You'll also learn how to automate legacy and the latest network devices. As you progress through the chapters, you'll use Python for DevOps and open source tools to test, secure, and analyze your network. Toward the end, you'll develop client-side applications, such as web API clients, email clients, SSH, and FTP, using socket programming. By the end of this Learning Path, you will have learned how to analyze a network's security vulnerabilities using advanced network packet capture and analysis techniques. This Learning Path includes content from the following Packt products: Practical Network Automation by Abhishek Ratan Mastering Python Networking by Eric Chou Python Network Programming Cookbook, Second Edition by Pradeeban Kathiravelu, Dr. M. O. Faruque Sarker What you will learn Create socket-based networks with asynchronous models Develop client apps for web APIs, including S3 Amazon and TwitterTalk to email and remote network servers with different protocols Integrate Python with Cisco, Juniper, and Arista eAPI for automation Use Telnet and SSH connections for remote system

monitoring Interact with websites via XML-RPC, SOAP, and REST APIs Build networks with Ryu, OpenDaylight, Floodlight, ONOS, and POX Configure virtual networks in different deployment environments Who this book is for If you are a Python developer or a system administrator who wants to start network programming, this Learning Path gets you a step closer to your goal. IT professionals and DevOps engineers who are new to managing network devices or those with minimal experience looking to expand their knowledge and skills in Python will also find this Learning Path useful. Although prior knowledge of networking is not required, some experience in Python programming will be helpful for a better understanding of the concepts in the Learning Path.

C++ Network Programming, Volume I БХВ-Петербург

The object oriented paradigm has become one of the dominant forces in the computing world. According to a recent survey, by the year 2000, more than 80% of development organizations are expected to use object technology as the basis for their distributed development

strategies. Handbook of Object Technology encompasses the entire spectrum of disciplines and topics related to this rapidly expanding field - outlining emerging technologies, latest advances, current trends, new specifications, and ongoing research. The handbook divides into 13 sections, each containing chapters related to that specific discipline. Up-to-date, non-abstract information provides the reader with practical, useful knowledge - directly applicable to the understanding and improvement of the reader's job or the area of interest related to this technology. Handbook of Object Technology discusses: the processes, notation, and tools for classical OO methodologies as well as information on future methodologies prevalent and emerging OO languages standards and specifications frameworks and patterns databases metrics business objects intranets analysis/design tools client/server application development environments

Learn Java 12 Programming Academic Press

Both theory and practice are blended together in order to learn how to build real

operating systems that function within a distributed environment. An introduction to standard operating system topics is combined with newer topics such as security, microkernels and embedded systems. This book also provides an overview of operating system fundamentals. For programmers who want to refresh their basic skills and be brought up-to-date on those topics related to operating systems.

The Impact of the 4th Industrial Revolution on Engineering Education CRC Press

This book provides comprehensive discussion on key topics related to the usage and deployment of software defined networks (SDN) in Internet of Everything applications like, healthcare systems, data centers, edge/fog computing, vehicular networks, intelligent transportation systems, smart grids, smart cities and more. The authors provide diverse solutions to overcome challenges of conventional network binding in various Internet of Everything applications where there is need of an adaptive, agile, and flexible network backbone. The book showcases different deployment models,

algorithms and implementations related to the usage of SDN in Internet of Everything applications along with the pros and cons of the same. Even more, this book provides deep insights into the architecture of software defined networking specifically about the layered architecture and different network planes, logical interfaces, and programmable operations. The need of network virtualization and the deployment models for network function virtualization is also included with an aim towards the design of interoperable network architectures by researchers in future. Uniquely, the authors find hands on practical implementation, deployment scenarios and use cases for various software defined networking architectures in Internet of Everything applications like healthcare networks, Internet of Things, intelligent transportation systems, smart grid, underwater acoustic networks and many more. In the end, design and research challenges, open issues, and future research directions are provided in this book for a wide range of readers

Principles of Biomedical Informatics
Springer

This is a textbook on concurrent programming which serves to integrate operating systems and database concepts, and provides a foundation for later study in these areas.

Distributed Network Systems John Wiley & Sons

For example code from the text, Winsock adaptations of text code, sample programming exercises and more, click on the grey "COMPANION SITE" button to the right. Note: This title was formerly known as Pocket Guide to TCP/IP Socket Programming in C, ISBN 1-55860-686-6. TCP/IP Sockets in C: Practical Guide for Programmers is a quick and affordable way to gain the knowledge and skills you need to develop sophisticated and powerful networked-based programs using sockets. Written by two experienced networking instructors, this book provides a series of examples that demonstrate basic sockets techniques for clients and servers. Using plenty of real-world examples, this book is a complete beginner's guide to socket programming and a springboard to more advanced networking topics, including multimedia protocols. *Concise, no-nonsense

explanations of issues often troublesome for beginners, including message construction and parsing. *Comprehensive example-based coverage of the most important TCP/IP techniques-including iterative and concurrent servers, timeouts, and asynchronous message processing. *Includes a detailed, easy-to-use reference to the system calls and auxiliary routines that comprise the sockets interface. *A companion Web site provides source code for all example programs in both C and WinSock versions, as well as guidance on running the code on various platforms. Concurrent systems Springer
Leading Java experts show you how to design and develop Java applications using the latest Java technologies included in JDKTM 1.1 and JDKTM 1.2 Are you an experienced Java programmer ready to take the leap from applet programming to building full-blown business applications? Then this is the book for you. The authors and contributors show you techniques using the latest Java technologies that dramatically extend the capabilities of Java. This book includes the latest in Java Media, RMI, JDBC, JFC, JavaBeans™, security, and more. This is the first book

where Java experts come together to show you what technology and techniques they use to produce real-world Java applications. Using numerous sample programs (included on the CD-ROM), this book provides you with cutting-edge techniques for building sophisticated applications using the latest Java technologies. Concentrating on topics of vital interest to programmers who need to write mission-critical business applications, the authors detail and explain the following: Advanced I/O and networking Concurrent programming with threads JavaBeans™ Advanced security techniques Java™ foundation classes Java Media JavaServer™ environment Java database connectivity Java Network Computers and JavaOSTM On the CD-ROM you'll find: Source code you can use to build your own applications Java documentation The Java City multimedia demo Try-and-Buy versions of Java™ Studio™ and Java™ WorkShop™. TCP/IP Sockets in C Springer Science & Business Media

For programmers who need to use Python for network-related activities and apps

KEY FEATURES

- Comprehensive coverage of

Python 3's improved SSL support. ● Create an asynchronous I/O loop on your own. ● A look at the "asyncio" framework, which is included with Python 3.4.

DESCRIPTION This book includes revisions for Python 3 as well as all of the classic topics covered, such as network protocols, network data and errors, email, server architecture, and HTTP and web applications. ● Comprehensive coverage of Python 3's improved SSL support. ● How to create an asynchronous I/O loop on your own. ● A look at the "asyncio" framework, which is included with Python 3.4. ● The Flask web framework's URL-to-Python code connection. ● How to safeguard your website from cross-site scripting and cross-site request forgery attacks. ● How Django, a full-stack web framework, can automate the round journey from your database to the screen and back.

WHAT YOU WILL LEARN

- Asynchronous models and socket-based networks
- Monitor distant systems using Telnet and SSH connections
- Interact with websites using XML-RPC, SOAP, and REST APIs
- Configure virtual networks in various deployment scenarios
- Analyze security weaknesses in a network

WHO

THIS BOOK IS FOR This book is for Python programmers who need a thorough understanding of how to use Python for network-related activities and applications. This book covers all you need to know about web application development, systems integration, and system administration.

TABLE OF CONTENTS

1. Client- Server Networking: An Overview
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Software Defined Internet of Everything

Informing Science

This book constitutes the refereed proceedings of the Second International Working Conference on Active Networks, IWAN 200, held in Tokyo, Japan in October

2000. The 30 revised full papers presented were carefully reviewed and selected from numerous submissions. The book offers topical sections on architecture, multicast, quality of service (QoS), applications, management, service architecture, and mobile IP.

Integrating and Connecting Care Addison-Wesley Professional

Principles of Biomedical Informatics provides a foundation for understanding the fundamentals of biomedical informatics, which deals with the storage, retrieval, and use of biomedical data for

biological problem solving and medical decision making. It covers the application of these principles to the three main biomedical domains of basic biology, clinical medicine, and public health. The author offers a coherent summary, focusing on the three core concept areas of biomedical data and knowledge representation: biomedical information access, biomedical decision making, and information and technology use in biomedical contexts. Develops principles and methods for representing biomedical

data, using information in context and in decision making, and accessing information to assist the medical community in using data to its full potential Provides a series of principles for expressing biomedical data and ideas in a computable form to integrate biological, clinical, and public health applications Includes a discussion of user interfaces, interactive graphics, and knowledge resources and reference material on programming languages to provide medical informatics programmers with the technical tools to develop systems