Book Secure Programming Cookbook For C And C Recipes

Do you feel that informatics is indispensable in today's increasingly digital world? Do you want to introduce yourself to the world of programming or cyber security but don't know where to get started? If the answer to these questions is yes, then keep reading... This book includes: PYTHON MACHINE LEARNING: A Beginner's Guide to Python Programming for Machine Learning and Deep Learning, Data Analysis, Algorithms and Data Science with Scikit Learn, TensorFlow, PyTorch and Keras Here's a sneak peek of what you'll learn with this book: - The Fundamentals of Python - Python for Machine Learning - Data Analysis in Python - Comparing Deep Learning and Machine Learning - The Role of Machine Learning in the Internet of Things (IoT) And much more... SQL FOR BEGINNERS: A Step by Step Guide to Learn SQL Programming for Query Performance Tuning on SQL Database Throughout these pages, you will learn: - How to build databases and tables with the data you create. - How to sort through the data efficiently to find what you need. - The exact steps to clean your data and make it easier to analyze. - How to modify and delete tables and databases. And much more... LINUX FOR BEGINNERS: An Introduction to the Linux Operating System for Installation, Configuration and Command Line We will cover the following topics: - How to Install Linux -The Linux Console - Command line interface - Network administration And much more... HACKING WITH KALI LINUX: A Beginner's Guide to Learn Penetration Testing to Protect Your Family and Business from Cyber Attacks Building a Home Security System for Wireless

Network Security You will learn: - The importance of cybersecurity - How malware and cyberattacks operate - How to install Kali Linux on a virtual box - VPNs & Firewalls And much more... ETHICAL HACKING: A Beginner's Guide to Computer and Wireless Networks Defense Strategies, Penetration Testing and Information Security Risk Assessment Here's a sneak peek of what you'll learn with this book: - What is Ethical Hacking (roles and responsibilities of an Ethical Hacker) - Most common security tools - The three ways to scan your system - The seven proven penetration testing strategies ...and much more. This book won't make you an expert programmer, but it will give you an exciting first look at programming and a foundation of basic concepts with which you can start your journey learning computer programming, machine learning and cybersecurity Scroll up and click the BUY NOW BUTTON! A guide to computer security for software developers demonstrates techniques for writing secure applications, covering cryptography, authentication, access control, and credentials. Discover the new features and widely used packages in Julia to solve complex computational problems in your statistical applications. Key Features Address the core problems of programming in Julia with the most popular packages for common tasks Tackle issues while working with Databases and Parallel data processing with Julia Explore advanced features such as metaprogramming, functional programming, and user defined types Book Description Julia, with its dynamic nature and high-performance, provides comparatively minimal time for the development of computational models with easy-to-maintain computational code. This book will be your solution-based guide as it will take you through different programming aspects with Julia. Starting with the new features of Julia 1.0, each recipe addresses a specific problem, providing a solution and explaining how it works. You will work with the powerful Julia

tools and data structures along with the most popular Julia packages. You will learn to create vectors, handle variables, and work with functions. You will be introduced to various recipes for numerical computing, distributed computing, and achieving high performance. You will see how to optimize data science programs with parallel computing and memory allocation. We will look into more advanced concepts such as metaprogramming and functional programming. Finally, you will learn how to tackle issues while working with databases and data processing, and will learn about on data science problems, data modeling, data analysis, data manipulation, parallel processing, and cloud computing with Julia. By the end of the book, you will have acquired the skills to work more effectively with your data What you will learn Boost your code's performance using Julia's unique features Organize data in to fundamental types of collections: arrays and dictionaries Organize data science processes within Julia and solve related problems Scale Julia computations with cloud computing Write data to IO streams with Julia and handle web transfer Define your own immutable and mutable types Speed up the development process using metaprogramming Who this book is for This book is for developers who would like to enhance their Julia programming skills and would like to get some guick solutions to their common programming problems. Basic Julia programming knowledge is assumed.

Over 80 object-oriented recipes to help you create mind-blowing GUIs in Python About This Book Use object-oriented programming to develop amazing GUIs in Python Create a working GUI project as a central resource for developing your Python GUIs Packed with easy-to-follow recipes to help you develop code using the latest released version of Python Who This Book Is For If you are a Python programmer with intermediate level knowledge of GUI programming

and want to learn how to create beautiful, effective, and responsive GUIs using the freely available Python GUI frameworks, this book is for you. What You Will Learn Create amazing GUIs with Python's built-in Tkinter module Customize the GUIs by using layout managers to arrange the GUI widgets Advance to an object-oriented programming style using Python Develop beautiful charts using the free Matplotlib Python module Use threading in a networked environment to make the GUIs responsive Discover ways to connect the GUIs to a database Understand how unit tests can be created and internationalize the GUI Extend the GUIs with free Python frameworks using best practices In Detail Python is a multi-domain, interpreted programming language. It is a widely used general-purpose, high-level programming language. It is often used as a scripting language because of its forgiving syntax and compatibility with a wide variety of different eco-systems. Its flexible syntax enables developers to write short scripts while at the same time, they can use object-oriented concepts to develop very large projects. Python GUI Programming Cookbook follows a task-based approach to help you create beautiful and very effective GUIs with the least amount of code necessary. This book uses the simplest programming style, using the fewest lines of code to create a GUI in Python, and then advances to using object-oriented programming in later chapters. If you are new to object-oriented programming (OOP), this book will teach you how to take advantage of the OOP coding style in the context of creating GUIs written in Python. Throughout the book, you will develop an entire GUI application, building recipe upon recipe, connecting the GUI to a database. In the later chapters, you will explore additional Python GUI frameworks, using best practices. You will also learn how to use threading to ensure your GUI doesn't go unresponsive. By the end of the book, you will be an expert in Python GUI programming to

develop a common set of GUI applications. Style and approach Every recipe in this programming cookbook solves a problem you might encounter in your programming career. At the same time, most of the recipes build on each other to create an entire, real-life GUI application.

Over 100 recipes to help you overcome your difficulties with C++ programming and gain a deeper understanding of the working of modern C++ About This Book Explore the most important language and library features of C++17, including containers, algorithms, regular expressions, threads, and more, Get going with unit testing frameworks Boost. Test, Google Test and Catch, Extend your C++ knowledge and take your development skills to new heights by making your applications fast, robust, and scalable. Who This Book Is For If you want to overcome difficult phases of development with C++ and leverage its features using modern programming practices, then this book is for you. The book is designed for both experienced C++ programmers as well as people with strong knowledge of OOP concepts. What You Will Learn Get to know about the new core language features and the problems they were intended to solve Understand the standard support for threading and concurrency and know how to put them on work for daily basic tasks Leverage C++'s features to get increased robustness and performance Explore the widely-used testing frameworks for C++ and implement various useful patterns and idioms Work with various types of strings and look at the various aspects of compilation Explore functions and callable objects with a focus on modern features Leverage the standard library and work with containers, algorithms, and iterators Use regular expressions for find and replace string operations Take advantage of the new filesystem library to work with files and directories Use the new utility additions to the standard library to solve

common problems developers encounter including string view, any, optional and variant types In Detail C++ is one of the most widely used programming languages. Fast, efficient, and flexible, it is used to solve many problems. The latest versions of C++ have seen programmers change the way they code, giving up on the old-fashioned C-style programming and adopting modern C++ instead. Beginning with the modern language features, each recipe addresses a specific problem, with a discussion that explains the solution and offers insight into how it works. You will learn major concepts about the core programming language as well as common tasks faced while building a wide variety of software. You will learn about concepts such as concurrency, performance, meta-programming, lambda expressions, regular expressions, testing, and many more in the form of recipes. These recipes will ensure you can make your applications robust and fast. By the end of the book, you will understand the newer aspects of C++11/14/17 and will be able to overcome tasks that are time-consuming or would break your stride while developing. Style and approach This book follows a recipe-based approach, with examples that will empower you to implement the core programming language features and explore the newer aspects of C++.

OpenCV 3 Computer Vision Application Programming Cookbook is appropriate for novice C++ programmers who want to learn how to use the OpenCV library to build computer vision applications. It is also suitable for professional software developers wishing to be introduced to the concepts of computer vision programming. It can also be used as a companion book in a university-level computer vision courses. It constitutes an excellent reference for graduate students and researchers in image processing and computer vision.

Overcome the vexing issues you're likely to face when creating apps for the iPhone, iPad, or Page 6/38

iPod touch. With new and thoroughly revised recipes in this updated cookbook, you'll quickly learn the steps necessary to work with the iOS 7 SDK--including ways to store and protect data, send and receive notifications, enhance and animate graphics, manage files and folders, and take advantage of UI Dynamics.

iOS 11, Swift 4, and Xcode 9 provide many new APIs for iOS developers. With this cookbook, you'll learn more than 170 proven solutions for tackling the latest features in iOS 11 and watchOS 4, including new ways to use Swift and Xcode to make your day-to-day app development life easier. This collection of code-rich recipes also gets you up to speed on continuous delivery and continuous integration systems. Ideal for intermediate and advanced iOS developers looking to work with the newest version of iOS, these recipes include reusable code on GitHub, so you can put them to work in your project right away. Among the topics covered in this book: New features in Swift 4 and Xcode 9 Tools for continuous delivery and continuous integration Snapshot testing and test automation Creating document-based applications Updated Map view and Core Location features iOS 11's Security and Password Autofill Data storage with Apple's Core Data Creating lively user interfaces with UI Dynamics Building iMessage applications and sticker packages Integrating Siri into your apps with Siri Kit Creating fascinating apps for Apple Watch

Use Qt5 to design and build a graphical user interface that is functional, appealing, and user-friendly for your software application About This Book Learn to make use of Qt5 to design and customize the look-and-feel of your application Improve the visual quality of your application by utilizing the graphic rendering system and animation system

provided by Qt5 A good balance of visual presentation and its contents will make an application appealing yet functional Who This Book Is For This book intended for those who want to develop software using Qt5. If you want to improve the visual quality and content presentation of your software application, this book is best suited to you. What You Will Learn Customize the look and feel of your application using the widget editor provided by Qt5 Change the states of the GUI elements to make them appear in a different form Animating the GUI elements using the built-in animation system provided by Qt5 Draw shapes and 2D images in your application using Qt5's powerful rendering system Draw 3D graphics in your application by implementing OpenGL, an industrystandard graphical library to your project Build a mobile app that supports touch events and export it to your device Parse and extract data from an XML file, then present it on your software's GUI Display web content on your program and interact with it by calling JavaScript functions from C++, or calling C++ functions from the web content Access to MySQL and SQLite databases to retrieve data and display it on your software's GUI In Detail With the advancement of computer technology, the software market is exploding with tons of software choices for the user, making their expectations higher in terms of functionality and the look and feel of the application. Therefore, improving the visual quality of your application is vital in order to overcome the market competition and stand out from the crowd. This book will teach you how to develop functional and appealing software using Qt5 through multiple projects that are interesting and fun. This

book covers a variety of topics such as look-and-feel customization, GUI animation, graphics rendering, implementing Google Maps, and more. You will learn tons of useful information, and enjoy the process of working on the creative projects provided in this book. Style and approach This book focuses on customizing the look and feel and utilizing the graphical features provided by Qt5. It takes a step-by-step approach, providing tons of screenshots and sample code for you to follow and learn. Each topic is explained sequentially and placed in context.

"What makes this book so important is that it reflects the experiences of two of the industry's most experienced hands at getting real-world engineers to understand just what they're being asked for when they're asked to write secure code. The book reflects Michael Howard's and David LeBlanc's experience in the trenches working with developers years after code was long since shipped, informing them of problems."
--From the Foreword by Dan Kaminsky, Director of Penetration Testing, IOActive Eradicate the Most Notorious Insecure Designs and Coding Vulnerabilities Fully updated to cover the latest security issues, 24 Deadly Sins of Software Security reveals the most common design and coding errors and explains how to fix each one-or better yet, avoid them from the start. Michael Howard and David LeBlanc, who teach Microsoft employees and the world how to secure code, have partnered again with John Viega, who uncovered the original 19 deadly programming sins. They have completely revised the book to address the most recent vulnerabilities and have added five brand-new

sins. This practical guide covers all platforms, languages, and types of applications. Eliminate these security flaws from your code: SQL injection Web server- and clientrelated vulnerabilities Use of magic URLs, predictable cookies, and hidden form fields Buffer overruns Format string problems Integer overflows C++ catastrophes Insecure exception handling Command injection Failure to handle errors Information leakage Race conditions Poor usability Not updating easily Executing code with too much privilege Failure to protect stored data Insecure mobile code Use of weak passwordbased systems Weak random numbers Using cryptography incorrectly Failing to protect network traffic Improper use of PKI Trusting network name resolution Violent Python shows you how to move from a theoretical understanding of offensive computing concepts to a practical implementation. Instead of relying on another attacker's tools, this book will teach you to forge your own weapons using the Python programming language. This book demonstrates how to write Python scripts to automate large-scale network attacks, extract metadata, and investigate forensic artifacts. It also shows how to write code to intercept and analyze network traffic using Python, craft and spoof wireless frames to attack wireless and Bluetooth devices, and how to data-mine popular social media websites and evade modern anti-virus. Demonstrates how to write Python scripts to automate large-scale network attacks, extract metadata, and investigate forensic artifacts Write code to intercept and analyze network traffic using Python. Craft and spoof wireless frames to attack wireless and

Bluetooth devices Data-mine popular social media websites and evade modern antivirus

Brimming with over 100 "recipes" for getting down to business and actually doing XP, the Java Extreme Programming Cookbook doesn't try to "sell" you on XP; it succinctly documents the most important features of popular open source tools for XP in Java--including Ant, Junit, Http'nit, Cactus, Tomcat, XDoclet--and then digs right in, providing recipes for implementing the tools in real-world environments.

Secure Programming Cookbook for C and C++

Most applications these days are at least somewhat network aware, but how do you protect those applications against common network security threats? Many developers are turning to OpenSSL, an open source version of SSL/TLS, which is the most widely used protocol for secure network communications. The OpenSSL library is seeing widespread adoption for web sites that require cryptographic functions to protect a broad range of sensitive information, such as credit card numbers and other financial transactions. The library is the only free, full-featured SSL implementation for C and C++, and it can be used programmatically or from the command line to secure most TCP-based network protocols. Network Security with OpenSSL enables developers to use this protocol much more effectively. Traditionally, getting something simple done in OpenSSL could easily take weeks. This concise book gives you the guidance you need to avoid pitfalls, while allowing you to take advantage of the library?s advanced

features. And, instead of bogging you down in the technical details of how SSL works under the hood, this book provides only the information that is necessary to use OpenSSL safely and effectively. In step-by-step fashion, the book details the challenges in securing network communications, and shows you how to use OpenSSL tools to best meet those challenges. As a system or network administrator, you will benefit from the thorough treatment of the OpenSSL command-line interface, as well as from step-by-step directions for obtaining certificates and setting up your own certification authority. As a developer, you will further benefit from the in-depth discussions and examples of how to use OpenSSL in your own programs. Although OpenSSL is written in C, information on how to use OpenSSL with Perl, Python and PHP is also included. OpenSSL may well answer your need to protect sensitive data. If that?s the case, Network Security with OpenSSL is the only guide available on the subject.

Looking for the perfect Python Programming Crash Course to put you through everything you need to know? It's right here with images and a whole chapter of practice! Why Learn Python? Python is an important programming language that any developer should know. Many programmers use this language to build websites, create learning algorithms, and perform other important tasks. Python is a really fun and rewarding language to learn, and I think anyone can get to a high level of proficiency in it if they find the right motivation. Python is currently the most sort after programming

language from Machine learning to Artificial Intelligience and so many more. Is it too late for you? Definitely not. You can learn Python right now and be very proficient in it in the next 6-7 months. Its all about your dedication. In this book, I'll be teaching you the basics of Python programming in a way you will really understand. There is no reason to teach you Machine Learning and Data Science as a beginner and this book wont bombard you with informations that you wont be able to digest. Personally, I'd recomment that you take it one chapter at a time. Try to understand the information in one chapter before moving onto the next. Python is here to stay and the aim is to be very good at it. This book will teach you the following from scratch: A clear introduction of Python and Python 3 installation All you need to know about Data types and variables A guide on Operators and Deep/Flat Copying Conditional Statements in Python Inputs and Loops in Python Print and Output Functions and Modules Class and Types Lists and Sets in Pythons Sequential data types The best part of it is that every topic listed above has practical examples to make things easier for you. This book is a beginners guide to Python with practical examples and the only thig you need to understand Python better. To read it, simply scoll to the top of this page and click the buy now button for any format you like and you'll get the Kindle version free if you order the paperback!

Filled with a practical collection of recipes, the UnrealScript Game Programming Cookbook is full of clear step-by-step instructions that help you harness the powerful

scripting language to supplement and add AAA quality to your very own projects. This

essential Cookbook has been assembled with both the hobbyist and professional developer in mind. A solid foundation of object oriented programming knowledge will be required. All examples can be replicated and used by UDK and in some cases other software and tools - all of which are available for free - can be used too. Secure Programming Cookbook for C and C++ is an important new resource for developers serious about writing secure code. It contains a wealth of solutions to problems faced by those who care about the security of their applications. It covers a wide range of topics, including safe initialization, access control, input validation, symmetric and public key cryptography, cryptographic hashes and MACs, authentication and key exchange, PKI, random numbers, and anti-tampering. The rich set of code samples provided in the book's more than 200 recipes will help programmers secure the C and C++ programs they write for both Unix® (including Linux®) and Windows® environments. Readers will learn: Despite their myriad manifestations and different targets, nearly all attacks on computer

systems have one fundamental cause: the code used to run far too many systems today is not secure. Flaws in its design, implementation, testing, and operations allow attackers all-too-easy access. "Secure Coding, by Mark G. Graff and Ken vanWyk, looks at the problem of bad code in a new way. Packed with advice based on the authors' decades of experience in the computer security field, this concise and highly

readable book explains why so much code today is filled with vulnerabilities, and tells readers what they must do to avoid writing code that can be exploited by attackers. Beyond the technical, "Secure Coding sheds new light on the economic, psychological, and sheer practical reasons why security vulnerabilities are so ubiquitous today. It presents a new way of thinking about these vulnerabilities and ways that developers can compensate for the factors that have produced such unsecured software in the past. It issues a challenge to all those concerned about computer security to finally make a commitment to building code the right way.

Offering developers an inexpensive way to include testing as part of the development cycle, this cookbook features scores of recipes for testing Web applications, from relatively simple solutions to complex ones that combine several solutions.

Secure your Amazon Web Services (AWS) infrastructure with permission policies, key management, and network security, along with following cloud security best practices Key Features Explore useful recipes for implementing robust cloud security solutions on AWS Monitor your AWS infrastructure and workloads using CloudWatch, CloudTrail, config, GuardDuty, and Macie Prepare for the AWS Certified Security-Specialty exam by exploring various security models and compliance offerings Book Description As a security consultant, securing your infrastructure by implementing policies and following best practices is critical. This cookbook discusses practical solutions to the most common problems related to safeguarding infrastructure, covering services and

features within AWS that can help you implement security models such as the CIA triad (confidentiality, integrity, and availability), and the AAA triad (authentication, authorization, and availability), along with non-repudiation. The book begins with IAM and S3 policies and later gets you up to speed with data security, application security, monitoring, and compliance. This includes everything from using firewalls and load balancers to secure endpoints, to leveraging Cognito for managing users and authentication. Over the course of this book, you'll learn to use AWS security services such as Config for monitoring, as well as maintain compliance with GuardDuty, Macie, and Inspector. Finally, the book covers cloud security best practices and demonstrates how you can integrate additional security services such as Glacier Vault Lock and Security Hub to further strengthen your infrastructure. By the end of this book, you'll be well versed in the techniques required for securing AWS deployments, along with having the knowledge to prepare for the AWS Certified Security – Specialty certification. What you will learn Create and manage users, groups, roles, and policies across accounts Use AWS Managed Services for logging, monitoring, and auditing Check compliance with AWS Managed Services that use machine learning Provide security and availability for EC2 instances and applications Secure data using symmetric and asymmetric encryption Manage user pools and identity pools with federated login Who this book is for If you are an IT security professional, cloud security architect, or a cloud application developer working on security-related roles and are interested in using AWS

infrastructure for secure application deployments, then this Amazon Web Services book is for you. You will also find this book useful if you're looking to achieve AWS certification. Prior knowledge of AWS and cloud computing is required to get the most out of this book.

A recipe-based guide to refining your C++ programming skills with the help of coding best practices, advanced programming concepts, and the latest features of C++17 and C++20 Key Features Learn how to develop and design your own libraries Find solutions to your app development problems and implement them in a highly reusable manner, following library development best practices Explore advanced C++ features such as containers, coroutines, and modules Book Description If you think you've mastered C++ and know everything it takes to write robust applications, you'll be in for a surprise. With this book, you'll gain comprehensive insights into C++, covering exclusive tips and interesting techniques to enhance your app development process. You'll kick off with the basic principles of library design and development, which will help you understand how to write reusable and maintainable code. You'll then discover the importance of exception safety, and how you can avoid unexpected errors or bugs in your code. The book will take you through the modern elements of C++, such as move semantics, type deductions, and coroutines. As you advance, you'll delve into template programming the standard tool for most library developers looking to achieve high code reusability. You'll explore the STL and learn how to avoid common pitfalls while implementing

templates. Later, you'll learn about the problems of multithreaded programming such as data races, deadlocks, and thread starvation. You'll also learn high-performance programming by using benchmarking tools and libraries. Finally, you'll discover advanced techniques for debugging and testing to ensure code reliability. By the end of this book, you'll have become an expert at C++ programming and will have gained the skills to solve complex development problems with ease. What you will learn Solve common C++ development problems by implementing solutions in a more generic and reusable way Achieve different levels of exception safety guarantees by introducing precise declarations Write library-quality code that meets professional standards Practice writing reliable, performant code that exposes consistent behavior in programs Understand why you need to implement design patterns and how it's done Work with complex examples to understand various aspects of good library design Who this book is for This book is for intermediate and expert-level C++ developers who are looking to explore the lesser known functionalities of the language to improve the efficiency of their code and the way they develop applications. Basic knowledge of object-oriented programming concepts and the Standard Template Library (STL) is assumed. The CERT C Coding Standard, Second Edition enumerates the coding errors that are the root causes of current software vulnerabilities in C, prioritizing them by severity, likelihood of exploitation, and remediation costs. "Secure programming in C can be more difficult than even many experienced programmers realize," said Robert C.

Seacord, technical manager of the CERT Secure Coding Initiative and author of the CERT C Coding Standard. "Software systems are becoming increasing complex as our dependency on these systems increases. In our new CERT standard, as with all of our standards, we identify insecure coding practices and present secure alternatives that software developers can implement to reduce or eliminate vulnerabilities before deployment."

Over 100 highly-effective recipes to help unleash your creativity with interactive art, graphics, computer vision, 3D, and more

A fast track example- driven guide with clear instructions and details for OData programming with .NET Framework.

Offers instructions for creating programs to do tasks including fetching URLs and generating bar charts using the open source scripting language, covering topics such as data types, regular expressions, encryption, and PEAR.

Discover practical solutions for a wide range of real-world network programming tasks About This Book Solve real-world tasks in the area of network programming, system/networking administration, network monitoring, and more. Familiarize yourself with the fundamentals and functionalities of SDN Improve your skills to become the next-gen network engineer by learning the various facets of Python programming Who This Book Is For This book is for network

engineers, system/network administrators, network programmers, and even web application developers who want to solve everyday network-related problems. If you are a novice, you will develop an understanding of the concepts as you progress with this book. What You Will Learn Develop TCP/IP networking client/server applications Administer local machines' IPv4/IPv6 network interfaces Write multi-purpose efficient web clients for HTTP and HTTPS protocols Perform remote system administration tasks over Telnet and SSH connections Interact with popular websites via web services such as XML-RPC, SOAP, and REST APIs Monitor and analyze major common network security vulnerabilities Develop Software-Defined Networks with Ryu, OpenDaylight, Floodlight, ONOS, and POX Controllers Emulate simple and complex networks with Mininet and its extensions for network and systems emulations Learn to configure and build network systems and Virtual Network Functions (VNF) in heterogeneous deployment environments Explore various Python modules to program the Internet In Detail Python Network Programming Cookbook - Second Edition highlights the major aspects of network programming in Python, starting from writing simple networking clients to developing and deploying complex Software-Defined Networking (SDN) and Network Functions Virtualization (NFV) systems. It creates the building blocks for many practical web and networking applications

that rely on various networking protocols. It presents the power and beauty of Python to solve numerous real-world tasks in the area of network programming, network and system administration, network monitoring, and web-application development. In this edition, you will also be introduced to network modelling to build your own cloud network. You will learn about the concepts and fundamentals of SDN and then extend your network with Mininet. Next, you'll find recipes on Authentication, Authorization, and Accounting (AAA) and open and proprietary SDN approaches and frameworks. You will also learn to configure the Linux Foundation networking ecosystem and deploy and automate your networks with Python in the cloud and the Internet scale. By the end of this book, you will be able to analyze your network security vulnerabilities using advanced network packet capture and analysis techniques. Style and approach This book follows a practical approach and covers major aspects of network programming in Python. It provides hands-on recipes combined with short and concise explanations on code snippets. This book will serve as a supplementary material to develop hands-on skills in any academic course on network programming. This book further elaborates network softwarization, including Software-Defined Networking (SDN), Network Functions Virtualization (NFV), and orchestration. We learn to configure and deploy enterprise network platforms, develop applications on top of them with Python.

Learn how to secure your ASP.NET Core web app through robust and secure code Kev Features Discover the different types of security weaknesses in ASP.NET Core web applications and learn how to fix them Understand what code makes an ASP.NET Core web app unsafe Build your secure coding knowledge by following straightforward recipes Book Description ASP.NET Core developers are often presented with security test results showing the vulnerabilities found in their web apps. While the report may provide some highlevel fix suggestions, it does not specify the exact steps that you need to take to resolve or fix weaknesses discovered by these tests. In ASP.NET Secure Coding Cookbook, you'll start by learning the fundamental concepts of secure coding and then gradually progress to identifying common web app vulnerabilities in code. As you progress, you'll cover recipes for fixing security misconfigurations in ASP.NET Core web apps. The book further demonstrates how you can resolve different types of Cross-Site Scripting. A dedicated section also takes you through fixing miscellaneous vulnerabilities that are no longer in the OWASP Top 10 list. This book features a recipe-style format, with each recipe containing sample unsecure code that presents the problem and corresponding solutions to eliminate the security bug. You'll be able to follow along with each step of the

exercise and use the accompanying sample ASP.NET Core solution to practice writing secure code. By the end of this book, you'll be able to identify unsecure code causing different security flaws in ASP.NET Core web apps and you'll have gained hands-on experience in removing vulnerabilities and security defects from your code. What you will learn Understand techniques for squashing an ASP.NET Core web app security bug Discover different types of injection attacks and understand how you can prevent this vulnerability from being exploited Fix security issues in code relating to broken authentication and authorization Eliminate the risks of sensitive data exposure by getting up to speed with numerous protection techniques Prevent security misconfiguration by enabling ASP.NET Core web application security features Explore other ASP.NET web application vulnerabilities and secure coding best practices Who this book is for This ASP.NET Core book is for intermediate-level ASP.NET Core web developers and software engineers who use the framework to develop web applications and are looking to focus on their security using coding best practices. The book is also for application security engineers, analysts, and specialists who want to know more about securing ASP.NET Core using code and understand how to resolve issues identified by the security tests they perform daily.

Computer security is an ongoing process, a relentless contest between system administrators and intruders. A good administrator needs to stay one step ahead of any adversaries, which often involves a continuing process of education. If you're grounded in the basics of security, however, you won't necessarily want a complete treatise on the subject each time you pick up a book. Sometimes you want to get straight to the point. That's exactly what the new Linux Security Cookbook does. Rather than provide a total security solution for Linux computers, the authors present a series of easy-to-follow recipes--short, focused pieces of code that administrators can use to improve security and perform common tasks securely. The Linux Security Cookbook includes real solutions to a wide range of targeted problems, such as sending encrypted email within Emacs, restricting access to network services at particular times of day, firewalling a webserver, preventing IP spoofing, setting up key-based SSH authentication, and much more. With over 150 ready-to-use scripts and configuration files, this unique book helps administrators secure their systems without having to look up specific syntax. The book begins with recipes devised to establish a secure system, then moves on to secure day-to-day practices, and concludes with techniques to help your system stay secure. Some of the "recipes" you'll find in this book are: Controlling access to your system from firewalls down to individual

services, using iptables, ipchains, xinetd, inetd, and more Monitoring your network with tcpdump, dsniff, netstat, and other tools Protecting network connections with Secure Shell (SSH) and stunnel Safeguarding email sessions with Secure Sockets Layer (SSL) Encrypting files and email messages with GnuPG Probing your own security with password crackers, nmap, and handy scripts This cookbook's proven techniques are derived from hard-won experience. Whether you're responsible for security on a home Linux system or for a large corporation, or somewhere in between, you'll find valuable, to-the-point, practical recipes for dealing with everyday security issues. This book is a system saver.

Build better business applications with Microsoft Dynamics NAV 2009 with this book and eBook.

Android Security Cookbook' breaks down and enumerates the processes used to exploit and remediate Android app security vulnerabilities in the form of detailed recipes and walkthroughs. Android Security Cookbook is aimed at anyone who is curious about Android app security and wants to be able to take the necessary practical measures to protect themselves; this means that Android application developers, security researchers and analysts, penetration testers, and generally any CIO, CTO, or IT managers facing the impeding onslaught of mobile devices

in the business environment will benefit from reading this book.

LabVIEW is an award-winning programming language that allows engineers to create "virtual" instruments on their desktop. This new edition details the powerful features of LabVIEW 8.0. Written in a highly accessible and readable style, LabVIEW Graphical Programming illustrates basic LabVIEW programming techniques, building up to advanced programming concepts. New to this edition is study material for the CLAD and CLD exams.

Practical solutions to overcome challenges in creating console and web applications and working with systems-level and embedded code, network programming, deep neural networks, and much more. Key Features Work through recipes featuring advanced concepts such as concurrency, unsafe code, and macros to migrate your codebase to the Rust programming language Learn how to run machine learning models with Rust Explore error handling, macros. and modularization to write maintainable code Book Description Rust 2018, Rust's first major milestone since version 1.0, brings more advancement in the Rust language. The Rust Programming Cookbook is a practical guide to help you overcome challenges when writing Rust code. This Rust book covers recipes for configuring Rust for different environments and architectural designs, and provides solutions to practical problems. It will also take you through Rust's core

concepts, enabling you to create efficient, high-performance applications that use features such as zero-cost abstractions and improved memory management. As you progress, you'll delve into more advanced topics, including channels and actors, for building scalable, production-grade applications, and even get to grips with error handling, macros, and modularization to write maintainable code. You will then learn how to overcome common roadblocks when using Rust for systems programming, IoT, web development, and network programming. Finally, you'll discover what Rust 2018 has to offer for embedded programmers. By the end of the book, you'll have learned how to build fast and safe applications and services using Rust. What you will learn Understand how Rust provides unique solutions to solve system programming language problems Grasp the core concepts of Rust to develop fast and safe applications Explore the possibility of integrating Rust units into existing applications for improved efficiency Discover how to achieve better parallelism and security with Rust Write Python extensions in Rust Compile external assembly files and use the Foreign Function Interface (FFI) Build web applications and services using Rust for high performance Who this book is for The Rust cookbook is for software developers looking to enhance their knowledge of Rust and leverage its features using modern programming practices. Familiarity with Rust language is expected to get the most out of this book.

Over 25 hands-on recipes to create robust and highly-efficient cross-platform distributed applications with the Boost. Asio library About This Book Build highly efficient distributed applications with ease Enhance your cross-platform network programming skills with one of the most reputable C++ libraries Find solutions to real-world problems related to network programming with ready-to-use recipes using this detailed and practical handbook Who This Book Is For If you want to enhance your C++ network programming skills using the Boost. Asio library and understand the theory behind development of distributed applications, this book is just what you need. The prerequisite for this book is experience with general C++11. To get the most from the book and comprehend advanced topics, you will need some background experience in multithreading. What You Will Learn Boost your working knowledge of one of the most reputable C++ networking libraries—Boost. Asio Familiarize yourself with the basics of TCP and UDP protocols Create scalable and highly-efficient client and server applications Understand the theory behind development of distributed applications Increase the security of your distributed applications by adding SSL support Implement a HTTP client easily Use iostreams, scatter-gather buffers, and timers In Detail Starting with recipes demonstrating the execution of basic Boost. Asio operations, $\frac{Page-28/38}{Page-28/38}$

the book goes on to provide ready-to-use implementations of client and server applications from simple synchronous ones to powerful multithreaded scalable solutions. Finally, you are presented with advanced topics such as implementing a chat application, implementing an HTTP client, and adding SSL support. All the samples presented in the book are ready to be used in real projects just out of the box. As well as excellent practical examples, the book also includes extended supportive theoretical material on distributed application design and construction. Style and approach This book is a set of recipes, each containing the statement and description of a particular practical problem followed by code sample providing the solution to the problem and detailed step-by-step explanation. Recipes are grouped by topic into chapters and ordered by the level of complexity from basic to advanced.

SCFM: Secure Coding Field Manual is a must for every programmer assigned to write secure code. SCFM is a desk reference to attacks and programming language mitigations for OWASP Top 10 and CWE/SANS Top 25 security vulnerabilities. Languages covered include Java, C/C++, C#/VB.NET/ASP.NET, COBOL, and PL/SQL & DB2.

Password sniffing, spoofing, buffer overflows, and denial of service: these are only a few of the attacks on today's computer systems and networks. At the root $\frac{Page}{29/38}$

of this epidemic is poorly written, poorly tested, and insecure code that puts everyone at risk. Clearly, today's developers need help figuring out how to write code that attackers won't be able to exploit. But writing such code is surprisingly difficult. Secure Programming Cookbook for C and C++ is an important new resource for developers serious about writing secure code. It contains a wealth of solutions to problems faced by those who care about the security of their applications. It covers a wide range of topics, including safe initialization, access control, input validation, symmetric and public key cryptography, cryptographic hashes and MACs, authentication and key exchange, PKI, random numbers, and anti-tampering. The rich set of code samples provided in the book's more than 200 recipes will help programmers secure the C and C++ programs they write for both Unix® (including Linux®) and Windows® environments. Readers will learn: How to avoid common programming errors, such as buffer overflows, race conditions, and format string problems How to properly SSL-enable applications How to create secure channels for client-server communication without SSL How to integrate Public Key Infrastructure (PKI) into applications Best practices for using cryptography properly Techniques and strategies for properly validating input to programs How to launch programs securely How to use file access mechanisms properly Techniques for protecting applications from reverse

engineering The book's web site supplements the book by providing a place to post new recipes, including those written in additional languages like Perl, Java, and Python. Monthly prizes will reward the best recipes submitted by readers. Secure Programming Cookbook for C and C++ is destined to become an essential part of any developer's library, a code companion developers will turn to again and again as they seek to protect their systems from attackers and reduce the risks they face in today's dangerous world.

"The security of information systems has not improved at a rate consistent with the growth and sophistication of the attacks being made against them. To address this problem, we must improve the underlying strategies and techniques used to create our systems. Specifically, we must build security in from the start, rather than append it as an afterthought. That's the point of Secure Coding in C and C++. In careful detail, this book shows software developers how to build highquality systems that are less vulnerable to costly and even catastrophic attack. It's a book that every developer should read before the start of any serious project." -- Frank Abagnale, author, lecturer, and leading consultant on fraud prevention and secure documents Learn the Root Causes of Software Vulnerabilities and How to Avoid Them Commonly exploited software vulnerabilities are usually caused by avoidable software defects. Having

analyzed nearly 18,000 vulnerability reports over the past ten years, the CERT/Coordination Center (CERT/CC) has determined that a relatively small number of root causes account for most of them. This book identifies and explains these causes and shows the steps that can be taken to prevent exploitation. Moreover, this book encourages programmers to adopt security best practices and develop a security mindset that can help protect software from tomorrow's attacks, not just today's. Drawing on the CERT/CC's reports and conclusions, Robert Seacord systematically identifies the program errors most likely to lead to security breaches, shows how they can be exploited, reviews the potential consequences, and presents secure alternatives. Coverage includes technical detail on how to Improve the overall security of any C/C++ application Thwart buffer overflows and stack-smashing attacks that exploit insecure string manipulation logic Avoid vulnerabilities and security flaws resulting from the incorrect use of dynamic memory management functions Eliminate integerrelated problems: integer overflows, sign errors, and truncation errors Correctly use formatted output functions without introducing format-string vulnerabilities Avoid I/O vulnerabilities, including race conditions Secure Coding in C and C++ presents hundreds of examples of secure code, insecure code, and exploits, implemented for Windows and Linux. If you're responsible for creating secure C

or C++ software--or for keeping it safe--no other book offers you this much detailed, expert assistance.

A problem-solution-based guide to help you overcome hurdles effectively while working with kernel APIs, filesystems, networks, threads, and process communications Key Features Learn to apply the latest C++ features (from C++11, 14, 17, and 20) to facilitate systems programming Create robust and concurrent systems that make the most of the available hardware resources Delve into C++ inbuilt libraries and frameworks to design robust systems as per your business needs Book Description C++ is the preferred language for system programming due to its efficient low-level computation, data abstraction, and object-oriented features. System programming is about designing and writing computer programs that interact closely with the underlying operating system and allow computer hardware to interface with the programmer and the user. The C++ System Programming Cookbook will serve as a reference for developers who want to have ready-to-use solutions for the essential aspects of system programming using the latest C++ standards wherever possible. This C++ book starts out by giving you an overview of system programming and refreshing your C++ knowledge. Moving ahead, you will learn how to deal with threads and processes, before going on to discover recipes for how to manage memory. The

concluding chapters will then help you understand how processes communicate and how to interact with the console (console I/O). Finally, you will learn how to deal with time interfaces, signals, and CPU scheduling. By the end of the book, you will become adept at developing robust systems applications using C++. What you will learn Get up to speed with the fundamentals including makefile, man pages, compilation, and linking and debugging Understand how to deal with time interfaces, signals, and CPU scheduling Develop your knowledge of memory management Use processes and threads for advanced synchronizations (mutexes and condition variables) Understand interprocess communications (IPC): pipes, FIFOs, message queues, shared memory, and TCP and UDP Discover how to interact with the console (console I/O) Who this book is for This book is for C++ developers who want to gain practical knowledge of systems programming. Though no experience of Linux system programming is assumed, intermediate knowledge of C++ is necessary.

Easy to understand and fun to read, this updated edition of Introducing Python is ideal for beginning programmers as well as those new to the language. Author Bill Lubanovic takes you from the basics to more involved and varied topics, mixing tutorials with cookbook-style code recipes to explain concepts in Python 3. End-of-chapter exercises help you practice what you've learned. You'll gain a

strong foundation in the language, including best practices for testing, debugging, code reuse, and other development tips. This book also shows you how to use Python for applications in business, science, and the arts, using various Python tools and open source packages.

Tackle the trickiest of problems in Go programming with this practical guide Key Features Develop applications for different domains using modern programming techniques Tackle common problems when it comes to parallelism, concurrency, and reactive programming in Go Work with ready-to-execute code based on the latest version of Go Book Description Go (or Golang) is a statically typed programming language developed at Google. Known for its vast standard library, it also provides features such as garbage collection, type safety, dynamic-typing capabilities, and additional built-in types. This book will serve as a reference while implementing Go features to build your own applications. This Go cookbook helps you put into practice the advanced concepts and libraries that Golang offers. The recipes in the book follow best practices such as documentation, testing, and vendoring with Go modules, as well as performing clean abstractions using interfaces. You'll learn how code works and the common pitfalls to watch out for. The book covers basic type and error handling, and then moves on to explore applications, such as websites, command-line tools, and filesystems, that

interact with users. You'll even get to grips with parallelism, distributed systems, and performance tuning. By the end of the book, you'll be able to use open source code and concepts in Go programming to build enterprise-class applications without any hassle. What you will learn Work with third-party Go projects and modify them for your use Write Go code using modern best practices Manage your dependencies with the new Go module system Solve common problems encountered when dealing with backend systems or DevOps Explore the Go standard library and its uses Test, profile, and fine-tune Go applications Who this book is for If you're a web developer, programmer, or enterprise developer looking for quick solutions to common and not-so-common problems in Go programming, this book is for you. Basic knowledge of the Go language is assumed.

Build, secure, and deploy real-world serverless applications in AWS and peek into the serverless cloud offerings from Azure, Google Cloud, and IBM Cloud Key Features Build serverless applications with AWS Lambda, AWS CloudFormation and AWS CloudWatch Perform data analytics and natural language processing(NLP)on the AWS serverless platform Explore various design patterns and best practices involved in serverless computing Book Description Managing physical servers will be a thing of the past once you're able to harness the power

of serverless computing. If you're already prepped with the basics of serverless computing, Serverless Programming Cookbook will help you take the next step ahead. This recipe-based guide provides solutions to problems you might face while building serverless applications. You'll begin by setting up Amazon Web Services (AWS), the primary cloud provider used for most recipes. The next set of recipes will cover various components to build a Serverless application including REST APIs, database, user management, authentication, web hosting, domain registration, DNS management, CDN, messaging, notifications and monitoring. The book also introduces you to the latest technology trends such as Data Streams, Machine Learning and NLP. You will also see patterns and practices for using various services in a real world application. Finally, to broaden your understanding of Serverless computing, you'll also cover getting started guides for other cloud providers such as Azure, Google Cloud Platform and IBM cloud. By the end of this book, you'll have acquired the skills you need to build serverless applications efficiently using various cloud offerings. What you will learn Serverless computing in AWS and explore services with other clouds Develop full-stack apps with API Gateway, Cognito, Lambda and DynamoDB Web hosting with S3, CloudFront, Route 53 and AWS Certificate Manager SQS and SNS for effective communication between microservices Monitoring and

troubleshooting with CloudWatch logs and metrics Explore Kinesis Streams, Amazon ML models and Alexa Skills Kit Who this book is for For developers looking for practical solutions to common problems while building a serverless application, this book provides helpful recipes. To get started with this intermediate-level book, knowledge of basic programming is a must.

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