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[Python All-in-One For Dummies](#) - John C. Shovic 2021-03-29

The one-stop resource for all your Python queries Powerful and flexible, Python is one

of the most popular programming languages in the world. It's got all the right stuff for the software driving the cutting-edge of the development world—machine learning, robotics, artificial intelligence, data science, etc. The good news is that it's also pretty straightforward to learn, with a simplified syntax, natural-language flow, and an amazingly supportive user community. The latest edition of *Python All-in-One For Dummies* gives you an inside look at the exciting possibilities offered in the Python world and provides a springboard to launch yourself into wherever you want your coding career to take you. These 7 straightforward and friendly mini-books assume the reader is a beginning programmer, and cover everything from the basic elements of Python code to introductions to the specific applications where you'll use it. Intended as a hands-on reference, the focus is on practice over theory, providing you with

examples to follow as well as code for you to copy and start modifying in the "real world"—helping you get up and running in your area of interest almost right away. This means you'll be finishing off your first app or building and remote-controlling your own robot much faster than you can believe. Get a thorough grounding in the language basics Learn how the syntax is applied in high-profile industries Apply Python to projects in enterprise Find out how Python can get you into hot careers in AI, big data, and more Whether you're a newbie coder or just want to add Python to your magic box of tricks, this is the perfect, practical introduction—and one you'll return to as you grow your career.

[Python Crash Course, 2nd Edition](#) - Eric Matthes 2019-05-03

The best-selling Python book in the world, with over 1 million copies sold! A fast-paced, no-nonsense, updated guide to

programming in Python. If you've been thinking about learning how to code or picking up Python, this internationally bestselling guide to the most popular programming language is your quickest, easiest way to get started and go! Even if you have no experience whatsoever, Python Crash Course, 2nd Edition, will have you writing programs, solving problems, building computer games, and creating data visualizations in no time. You'll begin with basic concepts like variables, lists, classes, and loops—with the help of fun skill-strengthening exercises for every topic—then move on to making interactive programs and best practices for testing your code. Later chapters put your new knowledge into play with three cool projects: a 2D Space Invaders-style arcade game, a set of responsive data visualizations you'll build with Python's handy libraries (Pygame, Matplotlib, Plotly,

Django), and a customized web app you can deploy online. Why wait any longer? Start your engine and code!

Python Network Programming -

Abhishek Ratan 2019-01-31

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 Twitter Talk 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. [Python for Data Analysis](#) - Wes McKinney 2017-09-25 Get complete instructions for manipulating, processing, cleaning, and crunching

datasets in Python. Updated for Python 3.6, the second edition of this hands-on guide is packed with practical case studies that show you how to solve a broad set of data analysis problems effectively. You'll learn the latest versions of pandas, NumPy, IPython, and Jupyter in the process. Written by Wes McKinney, the creator of the Python pandas project, this book is a practical, modern introduction to data science tools in Python. It's ideal for analysts new to Python and for Python programmers new to data science and scientific computing. Data files and related material are available on GitHub. Use the IPython shell and Jupyter notebook for exploratory computing Learn basic and advanced features in NumPy (Numerical Python) Get started with data analysis tools in the pandas library Use flexible tools to load, clean, transform, merge, and reshape data Create informative visualizations with matplotlib Apply the

pandas groupby facility to slice, dice, and summarize datasets Analyze and manipulate regular and irregular time series data Learn how to solve real-world data analysis problems with thorough, detailed examples

Ultimate Step by Step Guide to Deep Learning Using Python - Daneyal Anis
2020-07-19

*Start your Data Science career using Python today!*Are you ready to start your new exciting career? Ready to master artificial intelligence and deep learning concepts?Are you overwhelmed with complexity of the books on this subject?Then let this breezy and fun little book on Python, Machine Learning and Deep Learning models make you a Data Scientist in 7 days!This book continues from where the first book in the series, Ultimate Step by Step Guide to Machine Learning Using Python, left of. In the first book you were

introduced to Python concepts such as: - Data Structures like Pandas -Foundational libraries like Numpy, Seaborn and Scikit-Learn-Regression analysis-Classification-Clustering-Association Learning-Dimension ReductionThis book builds on those concepts to expand on Machine Learning algorithms like: -Linear and Logistical regression-Decision tree-Support vector machines (SVM)After that, this book takes you on a journey into Deep Learning and Neural Networks with important concepts and libraries like: -Convolutional and Recurrent Neural Networks-TensorFlow-Keras-PyTorch-Keras-Apache MXNet-Microsoft Cognitive Toolkit (CNTK)The final part of the book covers all foundational concepts that are required for Amazon Web Services (AWS) Certified Machine Learning Specialization by explaining how to deploy your models at scale on Cloud technologies. While AWS is used in the book for illustrative

purposes, Microsoft Azure and Google Cloud are also introduced as alternative cloud technologies. After reading this book you will be able to: -Code in Python with confidence-Build new machine learning and deep learning models from scratch-Know how to clean and prepare your data for analytics-Speak confidently about statistical analysis techniquesData Science was ranked the fast-growing field by LinkedIn and Data Scientist is one of the most highly sought after and lucrative careers in the world!If you are on the fence about making the leap to a new and lucrative career, this is the book for you!What sets this book apart from other books on the topic of Python and Machine learning: -Step by step code examples and explanation-Complex concepts explained visually-Real world applicability of the machine learning and deep learning models introducedWhat do I need to get started?You will have a step by

step action plan in place once you finish this book and finally feel that you, can master data science and artificial intelligence and start a lucrative and rewarding career!

Ready to dive in to the exciting world of Python and Deep Learning? Then scroll up to the top and hit that BUY BUTTON!

Network Programmability and

Automation - Jason Edelman 2018-02-02

Like sysadmins before them, network engineers are finding that they cannot do their work manually anymore. As the field faces new protocols, technologies, delivery models, and a pressing need for businesses to be more agile and flexible, network automation is becoming essential. This practical guide shows network engineers how to use a range of technologies and tools—including Linux, Python, JSON, and XML—to automate their systems through code. Network programming and automation will help you simplify tasks

involved in configuring, managing, and operating network equipment, topologies, services, and connectivity. Through the course of the book, you'll learn the basic skills and tools you need to make this critical transition. This book covers: Python programming basics: data types, conditionals, loops, functions, classes, and modules Linux fundamentals to provide the foundation you need on your network automation journey Data formats and models: JSON, XML, YAML, and YANG for networking Jinja templating and its applicability for creating network device configurations The role of application programming interfaces (APIs) in network automation Source control with Git to manage code changes during the automation process How Ansible, Salt, and StackStorm open source automation tools can be used to automate network devices Key tools and technologies required for a

Continuous Integration (CI) pipeline in network operations

Mastering Python for Networking and Security - José Manuel Ortega 2018-09-28

Master Python scripting to build a network and perform security operations
Key Features
Learn to handle cyber attacks with modern Python scripting
Discover various Python libraries for building and securing your network
Understand Python packages and libraries to secure your network infrastructure
Book Description
It's becoming more and more apparent that security is a critical aspect of IT infrastructure. A data breach is a major security incident, usually carried out by just hacking a simple network line. Increasing your network's security helps step up your defenses against cyber attacks. Meanwhile, Python is being used for increasingly advanced tasks, with the latest update introducing many new packages. This book focuses on leveraging these

updated packages to build a secure network with the help of Python scripting. This book covers topics from building a network to the different procedures you need to follow to secure it. You'll first be introduced to different packages and libraries, before moving on to different ways to build a network with the help of Python scripting. Later, you will learn how to check a network's vulnerability using Python security scripting, and understand how to check vulnerabilities in your network. As you progress through the chapters, you will also learn how to achieve endpoint protection by leveraging Python packages along with writing forensic scripts. By the end of this book, you will be able to get the most out of the Python language to build secure and robust networks that are resilient to attacks. What you will learn
Develop Python scripts for automating security and pentesting tasks
Discover the Python standard library's

main modules used for performing security-related tasksAutomate analytical tasks and the extraction of information from serversExplore processes for detecting and exploiting vulnerabilities in serversUse network software for Python programmingPerform server scripting and port scanning with PythonIdentify vulnerabilities in web applications with PythonUse Python to extract metadata and forensicsWho this book is for This book is ideal for network engineers, system administrators, or any security professional looking at tackling networking and security challenges. Programmers with some prior experience in Python will get the most out of this book. Some basic understanding of general programming structures and Python is required.

Network Programmability with YANG -

Benoit Claise 2019-05-10

Today, networks must evolve and scale

faster than ever. You can't manage everything by hand anymore: You need to automate relentlessly. YANG, along with the NETCONF, RESTCONF, or gRPC/gNMI protocols, is the most practical solution, but most implementers have had to learn by trial and error. Now, Network Programmability with YANG gives you complete and reliable guidance for unlocking the full power of network automation using model-driven APIs and protocols. Authored by three YANG pioneers, this plain-spoken book guides you through successfully applying software practices based on YANG data models. The authors focus on the network operations layer, emphasizing model-driven APIs, and underlying transports. Whether you're a network operator, DevOps engineer, software developer, orchestration engineer, NMS/OSS architect, service engineer, or manager, this guide can help you

dramatically improve value, agility, and manageability throughout your network. Discover the value of implementing YANG and Data Model-Driven Management in your network Explore the layers and components of a complete working solution Build a business case where value increases as your solution grows Drill down into transport protocols: NETCONF, RESTCONF, and gNMI/gRPC See how telemetry can establish a valuable automated feedback loop Find data models you can build on, and evaluate models with similar functionality Understand models, metadata, and tools from several viewpoints: architect, operator, module author, and application developer Walk through a complete automation journey: business case, service model, service implementation, device integration, and operation Leverage the authors' experience to design successful YANG models and avoid pitfalls

Mastering Python Data Analysis - Magnus Vilhelm Persson 2016-06-27

Become an expert at using Python for advanced statistical analysis of data using real-world examples About This Book Clean, format, and explore data using graphical and numerical summaries Leverage the IPython environment to efficiently analyze data with Python Packed with easy-to-follow examples to develop advanced computational skills for the analysis of complex data Who This Book Is For If you are a competent Python developer who wants to take your data analysis skills to the next level by solving complex problems, then this advanced guide is for you. Familiarity with the basics of applying Python libraries to data sets is assumed. What You Will Learn Read, sort, and map various data into Python and Pandas Recognise patterns so you can understand and explore data Use statistical models to

discover patterns in data Review classical statistical inference using Python, Pandas, and SciPy Detect similarities and differences in data with clustering Clean your data to make it useful Work in Jupyter Notebook to produce publication ready figures to be included in reports In Detail Python, a multi-paradigm programming language, has become the language of choice for data scientists for data analysis, visualization, and machine learning. Ever imagined how to become an expert at effectively approaching data analysis problems, solving them, and extracting all of the available information from your data? Well, look no further, this is the book you want! Through this comprehensive guide, you will explore data and present results and conclusions from statistical analysis in a meaningful way. You'll be able to quickly and accurately perform the hands-on sorting, reduction, and subsequent analysis, and fully

appreciate how data analysis methods can support business decision-making. You'll start off by learning about the tools available for data analysis in Python and will then explore the statistical models that are used to identify patterns in data. Gradually, you'll move on to review statistical inference using Python, Pandas, and SciPy. After that, we'll focus on performing regression using computational tools and you'll get to understand the problem of identifying clusters in data in an algorithmic way. Finally, we delve into advanced techniques to quantify cause and effect using Bayesian methods and you'll discover how to use Python's tools for supervised machine learning. Style and approach This book takes a step-by-step approach to reading, processing, and analyzing data in Python using various methods and tools. Rich in examples, each topic connects to real-world examples and retrieves data directly online

where possible. With this book, you are given the knowledge and tools to explore any data on your own, encouraging a curiosity befitting all data scientists.

Deep Learning with Python - Francois Chollet 2017-11-30

Summary Deep Learning with Python introduces the field of deep learning using the Python language and the powerful Keras library. Written by Keras creator and Google AI researcher François Chollet, this book builds your understanding through intuitive explanations and practical examples.

Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Machine learning has made remarkable progress in recent years. We went from near-unusable speech and image recognition, to near-human accuracy. We went from machines that couldn't beat a serious Go player, to defeating a world

champion. Behind this progress is deep learning—a combination of engineering advances, best practices, and theory that enables a wealth of previously impossible smart applications. About the Book Deep Learning with Python introduces the field of deep learning using the Python language and the powerful Keras library. Written by Keras creator and Google AI researcher François Chollet, this book builds your understanding through intuitive explanations and practical examples. You'll explore challenging concepts and practice with applications in computer vision, natural-language processing, and generative models. By the time you finish, you'll have the knowledge and hands-on skills to apply deep learning in your own projects. What's Inside Deep learning from first principles Setting up your own deep-learning environment Image-classification models Deep learning for text and

sequences Neural style transfer, text generation, and image generation About the Reader Readers need intermediate Python skills. No previous experience with Keras, TensorFlow, or machine learning is required. About the Author François Chollet works on deep learning at Google in Mountain View, CA. He is the creator of the Keras deep-learning library, as well as a contributor to the TensorFlow machine-learning framework. He also does deep-learning research, with a focus on computer vision and the application of machine learning to formal reasoning. His papers have been published at major conferences in the field, including the Conference on Computer Vision and Pattern Recognition (CVPR), the Conference and Workshop on Neural Information Processing Systems (NIPS), the International Conference on Learning Representations (ICLR), and others. Table of Contents PART 1 - FUNDAMENTALS OF DEEP

LEARNING What is deep learning? Before we begin: the mathematical building blocks of neural networks Getting started with neural networks Fundamentals of machine learning PART 2 - DEEP LEARNING IN PRACTICE Deep learning for computer vision Deep learning for text and sequences Advanced deep-learning best practices Generative deep learning Conclusions appendix A - Installing Keras and its dependencies on Ubuntu appendix B - Running Jupyter notebooks on an EC2 GPU instance [Mastering Python Networking](#) - Eric Chou 2020-01-30 New edition of the bestselling guide to mastering Python Networking, updated to Python 3 and including the latest on network data analysis, Cloud Networking, Ansible 2.8, and new libraries Key Features Explore the power of Python libraries to tackle difficult network problems efficiently and effectively, including pyATS, Nornir, and

Ansible 2.8 Use Python and Ansible for DevOps, network device automation, DevOps, and software-defined networking Become an expert in implementing advanced network-related tasks with Python 3 Book Description Networks in your infrastructure set the foundation for how your application can be deployed, maintained, and serviced. Python is the ideal language for network engineers to explore tools that were previously available to systems engineers and application developers. In *Mastering Python Networking, Third edition*, you'll embark on a Python-based journey to transition from traditional network engineers to network developers ready for the next-generation of networks. This new edition is completely revised and updated to work with Python 3. In addition to new chapters on network data analysis with ELK stack (Elasticsearch, Logstash, Kibana, and Beats) and Azure

Cloud Networking, it includes updates on using newer libraries such as pyATS and Nornir, as well as Ansible 2.8. Each chapter is updated with the latest libraries with working examples to ensure compatibility and understanding of the concepts. Starting with a basic overview of Python, the book teaches you how it can interact with both legacy and API-enabled network devices. You will learn to leverage high-level Python packages and frameworks to perform network automation tasks, monitoring, management, and enhanced network security followed by Azure and AWS Cloud networking. Finally, you will use Jenkins for continuous integration as well as testing tools to verify your network. What you will learn Use Python libraries to interact with your network Integrate Ansible 2.8 using Python to control Cisco, Juniper, and Arista network devices Leverage existing Flask web frameworks to construct high-level

APIs Learn how to build virtual networks in the AWS & Azure Cloud Learn how to use Elastic Stack for network data analysis Understand how Jenkins can be used to automatically deploy changes in your network Use PyTest and Unittest for Test-Driven Network Development in networking engineering with Python Who this book is for Mastering Python Networking, Third edition is for network engineers, developers, and SREs who want to use Python for network automation, programmability, and data analysis. Basic familiarity with Python programming and networking-related concepts such as Transmission Control Protocol/Internet Protocol (TCP/IP) will be useful.

Violent Python - TJ O'Connor 2012-12-28 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 anti-virus

Advance Core Python Programming -

Meenu Kohli 2021-06-08

Mastering Advanced Python Programming

KEY FEATURES ● In-depth coverage on fundamentals of functions, recursion, classes, inheritance, and files. ● Mastery of advanced topics - Database connectivity, Errors and Exception, Testing and Debugging, threads, Data visualization, and Data analysis. ● In-depth coverage of advanced concepts such as data structures, and algorithms. ● Simplifies GUI and Widgets. ● Learn to connect GUI with MySQL to create a complete working application. ● Introduction to Flask. ● Thorough, detailed, and complete coverage of all topics along with ample coding examples and illustrations. **DESCRIPTION** Advance Core Python Programming is designed for Programmers who have a good understanding of Python basics and are ready to take the next steps. For entry-level Python programmers willing to dive deeper

into programming, this book provides a path that will help them to add innovative features to their applications. This book starts by introducing you to the concept of Functions and Recursion and then moves on to higher levels of introducing you to OOP concepts, Files, integrating Python with database, threading, errors, exceptions, testing, debugging, data visualization, data analysis, GUI, data structures and algorithms. All these topics are the need of the hour and this book simplifies all these critical and essential concepts of Python for you. Knowledge of these topics will ease the functioning of your envisioned application. Throughout the book, you will have access to several coding examples which will help you to understand the real practical application of advanced Python concepts and you will be able to work on any kind of Python project with confidence. **WHAT YOU WILL LEARN** ● Learn advanced Python

topics in simple language. ● Learn how to code in easy-to-follow steps. ● Learn to create your own classes and functions. ● Learn to work with Files. ● Learn to configure MySQL and make Python programs interact with the MySQL database. ● Get to know different types of errors, exceptions, and ways to test, debug and rectify them. ● Learn how to use Python for Data Visualization and Data Analysis. ● Learn to Create GUI features and add Widgets. ● Learn about data structures and algorithms. ● Learn to create and develop stack, queues, trees, and linked lists. ● Explore Flask, its features, and how to use it to build web applications. ● Learn to work on complex code by following simple step-by-step instructions. ● Prepare for theory and practical exams related to advanced Python Concepts. WHO THIS BOOK IS FOR This book is highly appealing to all tech-savvy students, programming enthusiasts,

IT graduates, and computer science professionals who want to build strong proficiency in building Python applications. Prior understanding of Python basic coding concepts like variables, expressions, and control structures is required to begin with this book. You can also read Basic Core Python Programming to develop strong fundamentals before you start with this book. TABLE OF CONTENTS 1. Functions and Recursion 2. Classes, Objects, and Inheritance 3. Files 4. MySQL for Python 5. Python Threads 6. Errors, Exceptions, Testing, and Debugging 7. Data Visualization and Data Analysis 8. Creating the GUI form and Adding Widgets 9. MySQL and Python Graphical User Interface 10. Stack, Queue, and Deque 11. Linked List 12. Trees 13. Searching and Sorting 14. Getting Started with Flask
Programming for Computations - Python - Svein Linge 2016-07-25

This book presents computer programming as a key method for solving mathematical problems. There are two versions of the book, one for MATLAB and one for Python. The book was inspired by the Springer book TCSE 6: A Primer on Scientific Programming with Python (by Langtangen), but the style is more accessible and concise, in keeping with the needs of engineering students. The book outlines the shortest possible path from no previous experience with programming to a set of skills that allows the students to write simple programs for solving common mathematical problems with numerical methods in engineering and science courses. The emphasis is on generic algorithms, clean design of programs, use of functions, and automatic tests for verification.

Python for Scientists - John M. Stewart
2017-07-20
Scientific Python is taught from scratch in

this book via copious, downloadable, useful and adaptable code snippets. Everything the working scientist needs to know is covered, quickly providing researchers and research students with the skills to start using Python effectively.

Python Network Programming Cookbook - Pradeeban Kathiravelu
2017-08-09

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.

Mastering Python Regular Expressions -

Félix López 2014-02-21

A short and straight to the point guide that explains the implementation of Regular Expressions in Python. This book is aimed at Python developers who want to learn how to leverage Regular Expressions in Python. Basic knowledge of Python is required for a better understanding.

[FreeRADIUS Beginner's Guide](#) - Dirk Van der Walt 2011-09-08

Manage your network resources with FreeRADIUS by mastering authentication, authorization and accounting.

Mastering OpenVPN - Eric F Crist

2015-08-28

Master building and integrating secure private networks using OpenVPN About This Book Discover how to configure and set up a secure OpenVPN Enhance user experience by using multiple authentication methods Delve into better reporting, monitoring, logging, and control with OpenVPN Who This Book Is For If you are familiar with TCP/IP networking and general system administration, then this book is ideal for you. Some knowledge and understanding of core elements and applications related to Virtual Private Networking is assumed. What You Will Learn Identify different VPN protocols (IPSec, PPTP, OpenVPN) Build your own PKI and manage certificates Deploy your VPN on various devices like PCs, mobile phones, tablets, and more Differentiate between the routed and bridged network Enhance your VPN with monitoring and logging Authenticate against third-party

databases like LDAP or the Unix password file Troubleshoot an OpenVPN setup that is not performing correctly In Detail Security on the internet is increasingly vital to both businesses and individuals. Encrypting network traffic using Virtual Private Networks is one method to enhance security. The internet, corporate, and “free internet” networks grow more hostile every day. OpenVPN, the most widely used open source VPN package, allows you to create a secure network across these systems, keeping your private data secure. The main advantage of using OpenVPN is its portability, which allows it to be embedded into several systems. This book is an advanced guide that will help you build secure Virtual Private Networks using OpenVPN. You will begin your journey with an exploration of OpenVPN, while discussing its modes of operation, its clients, its secret keys, and their format types. You will

explore PKI: its setting up and working, PAM authentication, and MTU troubleshooting. Next, client-server mode is discussed, the most commonly used deployment model, and you will learn about the two modes of operation using "tun" and "tap" devices. The book then progresses to more advanced concepts, such as deployment scenarios in tun devices which will include integration with back-end authentication, and securing your OpenVPN server using iptables, scripting, plugins, and using OpenVPN on mobile devices and networks. Finally, you will discover the strengths and weaknesses of the current OpenVPN implementation, understand the future directions of OpenVPN, and delve into the troubleshooting techniques for OpenVPN. By the end of the book, you will be able to build secure private networks across the internet and hostile networks with confidence. Style and approach An easy-to-follow yet

comprehensive guide to building secure Virtual Private Networks using OpenVPN. A progressively complex VPN design is developed with the help of examples. More advanced topics are covered in each chapter, with subjects grouped according to their complexity, as well as their utility.

[Introduction to Networking](#) - Charles R. Severance 2015-05-29

This book demystifies the amazing architecture and protocols of computers as they communicate over the Internet. While very complex, the Internet operates on a few relatively simple concepts that anyone can understand. Networks and networked applications are embedded in our lives. Understanding how these technologies work is invaluable. This book was written for everyone - no technical knowledge is required! While this book is not specifically about the Network+ or CCNA certifications, it as a way to give students interested in

these certifications a starting point.

Mastering Regular Expressions - Jeffrey E. F. Friedl 2002

Introduces regular expressions and how they are used, discussing topics including metacharacters, nomenclature, matching and modifying text, expression processing, benchmarking, optimizations, and loops.

Python Scripting for Network Engineers - Wajid Hassan 2019-05-24

Today Network Automation can be used for provisioning, configurations, identifying rogue devices, mitigating security attacks, compliance, audits, capacity planning and scores of other network deployment activities. It has helped in enhancing network visibility and has empowered the network engineers to make faster, smarter network decisions, optimize uptime and performance, enhance security, and enable innovation instead of spending endless cycles in managing the network. This book

has been written for Network Engineers and Network Managers who are starting to explore network automation. This book is a good starting point for Network Engineers who learnt Programming in their earlier academic or work career and haven't used it in a long time or those Network Engineers who are learning Programming and Automation for the first time. The book has example Python Scripts which readers can practice and improve their job potential and make the networks more resilient and scalable.

Mastering Python Design Patterns - Kamon Ayeva 2018-08-31

Exploit various design patterns to master the art of solving problems using Python Key Features Master the application design using the core design patterns and latest features of Python 3.7 Learn tricks to solve common design and architectural challenges Choose the right plan to improve

your programs and increase their productivity

Book Description Python is an object-oriented scripting language that is used in a wide range of categories. In software engineering, a design pattern is an elected solution for solving software design problems. Although they have been around for a while, design patterns remain one of the top topics in software engineering, and are a ready source for software developers to solve the problems they face on a regular basis. This book takes you through a variety of design patterns and explains them with real-world examples. You will get to grips with low-level details and concepts that show you how to write Python code, without focusing on common solutions as enabled in Java and C++. You'll also find sections on corrections, best practices, system architecture, and its designing aspects. This book will help you learn the core concepts of design patterns and the way they can be

used to resolve software design problems. You'll focus on most of the Gang of Four (GoF) design patterns, which are used to solve everyday problems, and take your skills to the next level with reactive and functional patterns that help you build resilient, scalable, and robust applications. By the end of the book, you'll be able to efficiently address commonly faced problems and develop applications, and also be comfortable working on scalable and maintainable projects of any size. What you will learn

- Explore Factory Method and Abstract Factory for object creation
- Clone objects using the Prototype pattern
- Make incompatible interfaces compatible using the Adapter pattern
- Secure an interface using the Proxy pattern
- Choose an algorithm dynamically using the Strategy pattern
- Keep the logic decoupled from the UI using the MVC pattern
- Leverage the Observer pattern to understand reactive programming

Explore patterns for cloud-native, microservices, and serverless architectures
Who this book is for This book is for intermediate Python developers. Prior knowledge of design patterns is not required to enjoy this book.

Mastering Bitcoin - Andreas M. Antonopoulos
2017-06-12

Join the technological revolution that's taking the financial world by storm. *Mastering Bitcoin* is your guide through the seemingly complex world of bitcoin, providing the knowledge you need to participate in the internet of money. Whether you're building the next killer app, investing in a startup, or simply curious about the technology, this revised and expanded second edition provides essential detail to get you started. Bitcoin, the first successful decentralized digital currency, is still in its early stages and yet it's already spawned a multi-billion-dollar global

economy open to anyone with the knowledge and passion to participate. *Mastering Bitcoin* provides the knowledge. You simply supply the passion. The second edition includes: A broad introduction of bitcoin and its underlying blockchain—ideal for non-technical users, investors, and business executives An explanation of the technical foundations of bitcoin and cryptographic currencies for developers, engineers, and software and systems architects Details of the bitcoin decentralized network, peer-to-peer architecture, transaction lifecycle, and security principles New developments such as Segregated Witness, Payment Channels, and Lightning Network A deep dive into blockchain applications, including how to combine the building blocks offered by this platform into higher-level applications User stories, analogies, examples, and code snippets illustrating key technical concepts

Mastering Python Networking - Eric Chou
2017-06-28

Become an expert in implementing advanced, network-related tasks with Python. About This Book Build the skills to perform all networking tasks using Python with ease Use Python for network device automation, DevOps, and software-defined networking Get practical guidance to networking with Python Who This Book Is For If you are a network engineer or a programmer who wants to use Python for networking, then this book is for you. A basic familiarity with networking-related concepts such as TCP/IP and a familiarity with Python programming will be useful. What You Will Learn Review all the fundamentals of Python and the TCP/IP suite Use Python to execute commands when the device does not support the API or programmatic interaction with the device Implement automation techniques by

integrating Python with Cisco, Juniper, and Arista eAPI Integrate Ansible using Python to control Cisco, Juniper, and Arista networks Achieve network security with Python Build Flask-based web-service APIs with Python Construct a Python-based migration plan from a legacy to scalable SDN-based network. In Detail This book begins with a review of the TCP/ IP protocol suite and a refresher of the core elements of the Python language. Next, you will start using Python and supported libraries to automate network tasks from the current major network vendors. We will look at automating traditional network devices based on the command-line interface, as well as newer devices with API support, with hands-on labs. We will then learn the concepts and practical use cases of the Ansible framework in order to achieve your network goals. We will then move on to using Python for DevOps, starting with using open source

tools to test, secure, and analyze your network. Then, we will focus on network monitoring and visualization. We will learn how to retrieve network information using a polling mechanism, flow-based monitoring, and visualizing the data programmatically. Next, we will learn how to use the Python framework to build your own customized network web services. In the last module, you will use Python for SDN, where you will use a Python-based controller with OpenFlow in a hands-on lab to learn its concepts and applications. We will compare and contrast OpenFlow, OpenStack, OpenDaylight, and NFV. Finally, you will use everything you've learned in the book to construct a migration plan to go from a legacy to a scalable SDN-based network.

Style and approach An easy-to-follow guide packed with hands-on examples of using Python for network device automation, DevOps, and SDN.

Introducing Python - Bill Lubanovic
2019-11-06

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.

[Learn Python 3 the Hard Way](#) - Zed A. Shaw
2017-06-26

You Will Learn Python 3! Zed Shaw has

perfected the world's best system for learning Python 3. Follow it and you will succeed—just like the millions of beginners Zed has taught to date! You bring the discipline, commitment, and persistence; the author supplies everything else. In *Learn Python 3 the Hard Way*, you'll learn Python by working through 52 brilliantly crafted exercises. Read them. Type their code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn how a computer works; what good programs look like; and how to read, write, and think about code. Zed then teaches you even more in 5+ hours of video where he shows you how to break, fix, and debug your code—live, as he's doing the exercises. Install a complete Python environment Organize and write code Fix and break code Basic mathematics Variables Strings and text Interact with users Work with files Looping and logic Data

structures using lists and dictionaries Program design Object-oriented programming Inheritance and composition Modules, classes, and objects Python packaging Automated testing Basic game development Basic web development It'll be hard at first. But soon, you'll just get it—and that will feel great! This course will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful, popular programming languages. You'll be a Python programmer. This Book Is Perfect For Total beginners with zero programming experience Junior developers who know one or two languages Returning professionals who haven't written code in years Seasoned professionals looking for a fast, simple, crash course in Python 3 **Mastering Python** - Rick van Hattem 2016-04-29 Master the art of writing beautiful and powerful Python by using all of the features

that Python 3.5 offers About This Book
Become familiar with the most important
and advanced parts of the Python code style
Learn the trickier aspects of Python and put
it in a structured context for deeper
understanding of the language Offers an
expert's-eye overview of how these
advanced tasks fit together in Python as a
whole along with practical examples Who
This Book Is For Almost anyone can learn to
write working script and create high quality
code but they might lack a structured
understanding of what it means to be
'Pythonic'. If you are a Python programmer
who wants to code efficiently by getting the
syntax and usage of a few intricate Python
techniques exactly right, this book is for
you. What You Will Learn Create a virtualenv
and start a new project Understand how and
when to use the functional programming
paradigm Get familiar with the different
ways the decorators can be written in

Understand the power of generators and
coroutines without digressing into lambda
calculus Create metaclasses and how it
makes working with Python far easier
Generate HTML documentation out of
documents and code using Sphinx Learn
how to track and optimize application
performance, both memory and cpu Use the
multiprocessing library, not just locally but
also across multiple machines Get a basic
understanding of packaging and creating
your own libraries/applications In Detail
Python is a dynamic programming language.
It is known for its high readability and hence
it is often the first language learned by new
programmers. Python being multi-paradigm,
it can be used to achieve the same thing in
different ways and it is compatible across
different platforms. Even if you find writing
Python code easy, writing code that is
efficient, easy to maintain, and reuse is not
so straightforward. This book is an

authoritative guide that will help you learn new advanced methods in a clear and contextualised way. It starts off by creating a project-specific environment using venv, introducing you to different Pythonic syntax and common pitfalls before moving on to cover the functional features in Python. It covers how to create different decorators, generators, and metaclasses. It also introduces you to functools.wraps and coroutines and how they work. Later on you will learn to use asyncio module for asynchronous clients and servers. You will also get familiar with different testing systems such as py.test, doctest, and unittest, and debugging tools such as Python debugger and faulthandler. You will learn to optimize application performance so that it works efficiently across multiple machines and Python versions. Finally, it will teach you how to access C functions with a simple Python call. By the end of the book,

you will be able to write more advanced scripts and take on bigger challenges. Style and Approach This book is a comprehensive guide that covers advanced features of the Python language, and communicate them with an authoritative understanding of the underlying rationale for how, when, and why to use them.

DevNet Associate DEVASC 200-901 Official Certification Guide - Chris Jackson
2020-05-25

DevNet Associate DEVASC 200-901 Official Certification Guide is Cisco's official, comprehensive self-study resource for Cisco's DEVASC 200-901 exam: your pathway to the DevNet Associate Certification demonstrating your knowledge of application development and automation on Cisco platforms. Written by Cisco experts based on Cisco's own internal training, it clearly explains the value of each technique, presents realistic use cases, introduces

solution components, illuminates their inner workings, and shows how to execute on what you've learned in practice. Designed for all Cisco DevNet Associate candidates, it covers every DEVASC 200-901 objective concisely and logically, with extensive teaching features designed to promote retention and understanding. You'll find: Pre-chapter quizzes to assess knowledge upfront and focus your study more efficiently Foundation topics sections that explain concepts and configurations, and link theory to practice Key topics sections calling attention to every figure, table, and list you must know Exam Preparation sections with additional chapter review features Final preparation chapter providing tools and a complete final study plan A customizable practice test library This guide offers comprehensive, up-to-date coverage of all DEVASC 200-901 topics related to: Software development and design

Understanding and using APIs Cisco platforms and development Application deployment and security Infrastructure and automation Network fundamentals *Python Machine Learning* - Sebastian Raschka 2015-09-23

Unlock deeper insights into Machine Learning with this vital guide to cutting-edge predictive analytics About This Book Leverage Python's most powerful open-source libraries for deep learning, data wrangling, and data visualization Learn effective strategies and best practices to improve and optimize machine learning systems and algorithms Ask - and answer - tough questions of your data with robust statistical models, built for a range of datasets Who This Book Is For If you want to find out how to use Python to start answering critical questions of your data, pick up *Python Machine Learning* - whether you want to get started from scratch or

want to extend your data science knowledge, this is an essential and unmissable resource. What You Will Learn Explore how to use different machine learning models to ask different questions of your data Learn how to build neural networks using Keras and Theano Find out how to write clean and elegant Python code that will optimize the strength of your algorithms Discover how to embed your machine learning model in a web application for increased accessibility Predict continuous target outcomes using regression analysis Uncover hidden patterns and structures in data with clustering Organize data using effective pre-processing techniques Get to grips with sentiment analysis to delve deeper into textual and social media data In Detail Machine learning and predictive analytics are transforming the way businesses and other organizations operate. Being able to understand trends

and patterns in complex data is critical to success, becoming one of the key strategies for unlocking growth in a challenging contemporary marketplace. Python can help you deliver key insights into your data – its unique capabilities as a language let you build sophisticated algorithms and statistical models that can reveal new perspectives and answer key questions that are vital for success. Python Machine Learning gives you access to the world of predictive analytics and demonstrates why Python is one of the world's leading data science languages. If you want to ask better questions of data, or need to improve and extend the capabilities of your machine learning systems, this practical data science book is invaluable. Covering a wide range of powerful Python libraries, including scikit-learn, Theano, and Keras, and featuring guidance and tips on everything from sentiment analysis to neural networks, you'll soon be able to

answer some of the most important questions facing you and your organization. Style and approach Python Machine Learning connects the fundamental theoretical principles behind machine learning to their practical application in a way that focuses you on asking and answering the right questions. It walks you through the key elements of Python and its powerful machine learning libraries, while demonstrating how to get to grips with a range of statistical models.

Learning Python Network Programming - Dr. M. O. Faruque Sarker 2015-06-17

Network programming has always been a demanding task. With full-featured and well documented libraries all the way up the stack, Python makes network programming the enjoyable experience it should be. Starting with a walkthrough of today's major networking protocols, with this book you'll learn how to employ Python for network

programming, how to request and retrieve web resources, and how to extract data in major formats over the Web. You'll utilize Python for e-mailing using different protocols and you'll interact with remote systems and IP and DNS networking. As the book progresses, socket programming will be covered, followed by how to design servers and the pros and cons of multithreaded and event-driven architectures. You'll develop practical client-side applications, including web API clients, e-mail clients, SSH, and FTP. These applications will also be implemented through existing web application frameworks.

Python Automation Cookbook - Jaime Buelta 2020-05-29

Get a firm grip on the core processes including browser automation, web scraping, Word, Excel, and GUI automation with Python 3.8 and higher Key

FeaturesAutomate integral business processes such as report generation, email marketing, and lead generationExplore automated code testing and Python's growth in data science and AI automation in three new chaptersUnderstand techniques to extract information and generate appealing graphs, and reports with MatplotlibBook Description In this updated and extended version of Python Automation Cookbook, each chapter now comprises the newest recipes and is revised to align with Python 3.8 and higher. The book includes three new chapters that focus on using Python for test automation, machine learning projects, and for working with messy data. This edition will enable you to develop a sharp understanding of the fundamentals required to automate business processes through real-world tasks, such as developing your first web scraping application, analyzing information

to generate spreadsheet reports with graphs, and communicating with automatically generated emails. Once you grasp the basics, you will acquire the practical knowledge to create stunning graphs and charts using Matplotlib, generate rich graphics with relevant information, automate marketing campaigns, build machine learning projects, and execute debugging techniques. By the end of this book, you will be proficient in identifying monotonous tasks and resolving process inefficiencies to produce superior and reliable systems. What you will learnLearn data wrangling with Python and Pandas for your data science and AI projectsAutomate tasks such as text classification, email filtering, and web scraping with PythonUse Matplotlib to generate a variety of stunning graphs, charts, and mapsAutomate a range of report generation tasks, from sending SMS and

email campaigns to creating templates, adding images in Word, and even encrypting PDFs Master web scraping and web crawling of popular file formats and directories with tools like BeautifulSoup Build cool projects such as a Telegram bot for your marketing campaign, a reader from a news RSS feed, and a machine learning model to classify emails to the correct department based on their content Create fire-and-forget automation tasks by writing cron jobs, log files, and regexes with Python scripting Who this book is for Python Automation Cookbook - Second Edition is for developers, data enthusiasts or anyone who wants to automate monotonous manual tasks related to business processes such as finance, sales, and HR, among others. Working knowledge of Python is all you need to get started with this book.

Mastering Python for Finance - James Ma Weiming 2015-04-29

If you are an undergraduate or graduate student, a beginner to algorithmic development and research, or a software developer in the financial industry who is interested in using Python for quantitative methods in finance, this is the book for you. It would be helpful to have a bit of familiarity with basic Python usage, but no prior experience is required.

Python Cookbook - David Beazley
2013-05-10

If you need help writing programs in Python 3, or want to update older Python 2 code, this book is just the ticket. Packed with practical recipes written and tested with Python 3.3, this unique cookbook is for experienced Python programmers who want to focus on modern tools and idioms. Inside, you'll find complete recipes for more than a dozen topics, covering the core Python language as well as tasks common to a wide variety of application domains. Each recipe

contains code samples you can use in your projects right away, along with a discussion about how and why the solution works.

Topics include: Data Structures and Algorithms Strings and Text Numbers, Dates, and Times Iterators and Generators Files and I/O Data Encoding and Processing Functions Classes and Objects Metaprogramming Modules and Packages Network and Web Programming Concurrency Utility Scripting and System Administration Testing, Debugging, and Exceptions C Extensions

Learning Python Networking - José Manuel Ortega 2019-03-29

Achieve improved network programmability and automation by leveraging powerful network programming concepts, algorithms, and tools Key Features Deal with remote network servers using SSH, FTP, SNMP and LDAP protocols. Design multi threaded and event-driven architectures for asynchronous

servers programming. Leverage your Python programming skills to build powerful network applications Book Description Network programming has always been a demanding task. With full-featured and well-documented libraries all the way up the stack, Python makes network programming the enjoyable experience it should be.

Starting with a walk through of today's major networking protocols, through this book, you'll learn how to employ Python for network programming, how to request and retrieve web resources, and how to extract data in major formats over the web. You will utilize Python for emailing using different protocols, and you'll interact with remote systems and IP and DNS networking. You will cover the connection of networking devices and configuration using Python 3.7, along with cloud-based network management tasks using Python. As the book progresses, socket programming will

be covered, followed by how to design servers, and the pros and cons of multithreaded and event-driven architectures. You'll develop practical clientside applications, including web API clients, email clients, SSH, and FTP. These applications will also be implemented through existing web application frameworks. What you will learnExecute Python modules on networking toolsAutomate tasks regarding the analysis and extraction of information from a networkGet to grips with asynchronous programming modules available in PythonGet to grips with IP address manipulation modules using Python programmingUnderstand the main frameworks available in Python that are focused on web applicationManipulate IP addresses and perform CIDR calculationsWho this book is for If you're a Python developer or a system administrator

with Python experience and you're looking to take your first steps in network programming, then this book is for you. If you're a network engineer or a network professional aiming to be more productive and efficient in networking programmability and automation then this book would serve as a useful resource. Basic knowledge of Python is assumed.

Mastering Python Networking - Eric Chou 2018-08-29

Master the art of using Python for a diverse range of network engineering tasks Key Features Explore the power of Python libraries to tackle difficult network problems efficiently and effectively Use Python for network device automation, DevOps, and software-defined networking Become an expert in implementing advanced network-related tasks with Python Book Description Networks in your infrastructure set the foundation for how your application can be

deployed, maintained, and serviced. Python is the ideal language for network engineers to explore tools that were previously available to systems engineers and application developers. In this second edition of *Mastering Python Networking*, you'll embark on a Python-based journey to transition from traditional network engineers to network developers ready for the next-generation of networks. This book begins by reviewing the basics of Python and teaches you how Python can interact with both legacy and API-enabled network devices. As you make your way through the chapters, you will then learn to leverage high-level Python packages and frameworks to perform network engineering tasks for automation, monitoring, management, and enhanced security. In the concluding chapters, you will use Jenkins for continuous network integration as well as testing tools to verify your network. By the end of this

book, you will be able to perform all networking tasks with ease using Python. What you will learn Use Python libraries to interact with your network Integrate Ansible 2.5 using Python to control Cisco, Juniper, and Arista eAPI network devices Leverage existing frameworks to construct high-level APIs Learn how to build virtual networks in the AWS Cloud Understand how Jenkins can be used to automatically deploy changes in your network Use PyTest and Unittest for Test-Driven Network Development Who this book is for *Mastering Python Networking* is for network engineers and programmers who want to use Python for networking. Basic familiarity with Python programming and networking-related concepts such as Transmission Control Protocol/Internet Protocol (TCP/IP) will be useful.

Mastering Python for Networking and Security - Jose Manuel Ortega 2021-01-04 Tackle security and networking issues using

Python libraries such as Nmap, requests, asyncio, and scrapy Key Features Enhance your Python programming skills in securing systems and executing networking tasks Explore Python scripts to debug and secure complex networks Learn to avoid common cyber events with modern Python scripting Book Description It's now more apparent than ever that security is a critical aspect of IT infrastructure, and that devastating data breaches can occur from simple network line hacks. As shown in this book, combining the latest version of Python with an increased focus on network security can help you to level up your defenses against cyber attacks and cyber threats. Python is being used for increasingly advanced tasks, with the latest update introducing new libraries and packages featured in the Python 3.7.4 recommended version. Moreover, most scripts are compatible with the latest versions of

Python and can also be executed in a virtual environment. This book will guide you through using these updated packages to build a secure network with the help of Python scripting. You'll cover a range of topics, from building a network to the procedures you need to follow to secure it. Starting by exploring different packages and libraries, you'll learn about various ways to build a network and connect with the Tor network through Python scripting. You will also learn how to assess a network's vulnerabilities using Python security scripting. Later, you'll learn how to achieve endpoint protection by leveraging Python packages, along with writing forensic scripts. By the end of this Python book, you'll be able to use Python to build secure apps using cryptography and steganography techniques. What you will learn Create scripts in Python to automate security and pentesting tasks Explore Python

programming tools that are used in network security processes Automate tasks such as analyzing and extracting information from servers Understand how to detect server vulnerabilities and analyze security modules Discover ways to connect to and get information from the Tor network Focus on how to extract information with Python forensics tools Who this book is for This Python network security book is for network engineers, system administrators, or any security professional looking to overcome networking and security challenges. You will also find this book useful if you're a programmer with prior experience in Python. A basic understanding of general programming structures and the Python programming language is required before getting started.

Beginning Python - Magnus Lie Hetland
2006-11-07

* Totaling 900 pages and covering all of the

topics important to new and intermediate users, *Beginning Python* is intended to be the most comprehensive book on the Python ever written. * The 15 sample projects in *Beginning Python* are attractive to novice programmers interested in learning by creating applications of timely interest, such as a P2P file-sharing application, Web-based bulletin-board, and an arcade game similar to the classic *Space Invaders*. * The author Magnus Lie Hetland, PhD, is author of Apress' well-received 2002 title, *Practical Python*, ISBN: 1-59059-006-6. He's also author of the popular online guide, *Instant Python Hacking* (<http://www.hetland.org>), from which both *Practical Python* and *Beginning Python* are based.

Mastering Machine Learning with

scikit-learn - Gavin Hackeling 2017-07-24
Use scikit-learn to apply machine learning to real-world problems About This Book Master popular machine learning models including

k-nearest neighbors, random forests, logistic regression, k-means, naive Bayes, and artificial neural networks Learn how to build and evaluate performance of efficient models using scikit-learn Practical guide to master your basics and learn from real life applications of machine learning Who This Book Is For This book is intended for software engineers who want to understand how common machine learning algorithms work and develop an intuition for how to use them, and for data scientists who want to learn about the scikit-learn API. Familiarity with machine learning fundamentals and Python are helpful, but not required. What You Will Learn Review fundamental concepts such as bias and variance Extract features from categorical variables, text, and images Predict the values of continuous variables using linear regression and K Nearest Neighbors Classify documents and images using logistic regression and support

vector machines Create ensembles of estimators using bagging and boosting techniques Discover hidden structures in data using K-Means clustering Evaluate the performance of machine learning systems in common tasks In Detail Machine learning is the buzzword bringing computer science and statistics together to build smart and efficient models. Using powerful algorithms and techniques offered by machine learning you can automate any analytical model. This book examines a variety of machine learning models including popular machine learning algorithms such as k-nearest neighbors, logistic regression, naive Bayes, k-means, decision trees, and artificial neural networks. It discusses data preprocessing, hyperparameter optimization, and ensemble methods. You will build systems that classify documents, recognize images, detect ads, and more. You will learn to use scikit-learn's API to extract features from categorical

variables, text and images; evaluate model performance, and develop an intuition for how to improve your model's performance. By the end of this book, you will master all required concepts of scikit-learn to build efficient models at work to carry out advanced tasks with the practical approach. Style and approach This book is motivated by the belief that you do not understand something until you can describe it simply. Work through toy problems to develop your understanding of the learning algorithms and models, then apply your learnings to real-life problems.

Introduction to Python Network

Automation - Brendan Choi 2021-05-23

Learn and implement network automation within the Enterprise network using Python 3. This introductory book will be your guide to building an integrated virtual networking lab to begin your Network Automation journey and master the basics of Python

Network Automation. The book features a review of the practical Python network automation scripting skills and tips learned from the production network, so you can safely test and practice in a lab environment first, various Python modules such as paramiko and netmiko, pandas, re, and much more. You'll also develop essential skills such as Python scripting, regular expressions, Linux and Windows administration, VMware virtualization, and Cisco networking from the comfort of your laptop/PC with no actual networking hardware. Finally, you will learn to write a fully automated and working Cisco IOS XE upgrade application using Python. Introduction to Python Network Automation uses a canonical order, where you begin at the bottom and by the time you have completed this book, you will at least reach the intermediate level of Python coding for enterprise networking automation using

native Python tools. What You'll Learn Build a proper GNS3-based networking lab for Python network automation needs. Write the basics of Python codes in both the Windows and Linux environments. Control network devices using telnet, SSH, and SNMP protocols using Python codes. Understand virtualization and how to use VMware

workstation Examine virtualization and how to use VMware Workstation Pro Develop a working Cisco IOS upgrade application Who This Book Is For IT Engineers and developers, network managers and students, who would like to learn network automation using Python.