

Getting Started With Ubuntu 16 04

Bring yourself up to date on everything you need to know about Ubuntu Linux The Ubuntu Linux Bible covers all of the latest developments in version 8.10 and 8.04, including tips for newcomers as well as expert guidance for seasoned system administrators. Learn about topics like the Gnome Desktop, the Bash shell, virtual machines, wireless networking, file sharing, and more. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Docker lets you create, deploy, and manage your applications anywhere at anytime – flexibility is key so you can deploy stable, secure, and scalable app containers across a wide variety of platforms and delve into microservices architecture About This Book This up-to-date edition shows how to leverage Docker's features to deploy your existing applications Learn how to package your applications with Docker and build, ship, and scale your containers Explore real-world examples of securing and managing Docker containers Who This Book Is For This book is ideal for developers, operations managers, and IT professionals who would like to learn about Docker and use it to build and deploy container-based apps. No prior knowledge of Docker is expected. What You Will Learn Develop containerized applications using the Docker version 17.03 Build Docker images from containers and launch them Develop Docker images and containers leveraging Dockerfiles Use Docker volumes to share data Get to know how data is shared between containers Understand Docker Jenkins integration Gain the power of container orchestration Familiarize yourself with the frequently used commands such as docker exec, docker ps, docker top, and docker stats In Detail Docker is an open source containerization engine that offers a simple and faster way for developing and running software. Docker containers wrap software in a complete filesystem that contains everything it needs to run, enabling any application to be run anywhere – this flexibly and portably means that you can run apps in the cloud, on virtual machines, or on dedicated servers. This book will give you a tour of the new features of Docker and help you get started with Docker by building and deploying a simple application. It will walk you through the commands required to manage Docker images and containers. You'll be shown how to download new images, run containers, list the containers running on the Docker host, and kill them. You'll learn how to leverage Docker's volumes feature to share data between the Docker host and its containers – this data management feature is also useful for persistent data. This book also covers how to orchestrate containers using Docker compose, debug containers, and secure containers using the AppArmor and SELinux security modules. Style and approach This step-by-step guide will walk you through the features and use of Docker, from Docker software installation to the impenetrable security of containers.

This book is for you if you are a data scientist or working on any technical or scientific computation projects. The book assumes you have a basic working knowledge of high-level dynamic languages such as MATLAB, R, Python, or Ruby. Get hands-on recipes to make the most of Ubuntu Server, CentOS 7 Linux Server and RHEL 7 Server About This Book Get Linux servers up and running in seconds, In-depth guide to explore new features and solutions in server administration Maintain performance and security of your server solution by deploying expert configuration advice Who This Book Is For This Learning Path is intended for system administrators with a basic understanding of Linux operating systems and written with the novice-to-intermediate Linux user in mind. To get the most of this Learning Path, you should have a working knowledge of basic system administration and management tools. What You Will Learn Set up high performance, scalable, and fault-tolerant back ends with web and database servers Facilitate team communication with a real-time chat service and collaboration tools Monitor, manage and develop your server's file system to maintain a stable performance Gain best practice methods on sharing files and resources through a network Install and configure common standard services such as web, mail, FTP, database and domain name server technologies Create kickstart scripts to automatically deploy RHEL 7 systems Use Orchestration and configuration management tools to manage your environment In Detail Linux servers are frequently selected over other server operating systems for their stability, security and flexibility advantages. This Learning Path will teach you how to get up and running with three of the most popular Linux server distros: Ubuntu Server, CentOS 7 Server, and RHEL 7 Server. We will begin with the Ubuntu Server and show you how to make the most of Ubuntu's advanced functionalities. Moving on, we will provide you with all the knowledge that will give you access to the inner workings of the latest CentOS version 7. Finally, touching RHEL 7, we will provide you with solutions to common RHEL 7 Server challenges. This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: 1) Ubuntu Server Cookbook 2) CentOS 7 Linux Server Cookbook, Second Edition 3) Red Hat Enterprise Linux Server Cookbook Style and approach This easy-to-follow practical guide contains hands on examples and solutions to real word administration problems and problems faced when building your RHEL 7 system from scratch using orchestration tools.

Docker is rapidly changing the way organizations deploy software at scale. However, understanding how Linux containers fit into your workflow—and getting the integration details right—is not a trivial task. With the updated edition of this practical guide, you'll learn how to use Docker to package your applications with all of their dependencies and then test, ship, scale, and support your containers in production. This edition includes significant updates to the examples and explanations that reflect the substantial changes that have occurred over the past couple of years. Sean Kane and Karl Matthias have added a complete chapter on Docker Compose, deeper coverage of Docker Swarm mode, introductions to both Kubernetes and AWS Fargate, examples on how to optimize your Docker images, and much more. Learn how Docker simplifies dependency management and deployment workflow for your applications Start working with Docker images, containers, and command line tools Use practical techniques to deploy and test Docker containers in production Debug containers by understanding their composition and internal processes Deploy production containers at scale inside your data center or cloud environment Explore advanced Docker topics, including deployment tools, networking, orchestration, security, and configuration

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Provides information on getting the most out of Ubuntu Linux, covering the installation, configuration, and customization of the operating system.

Transform and modernize your businesses and upgrade your enterprise management skills with Odoo 11, the most comprehensive management software Key Features Use project management along with analytics for better reporting Build an Odoo module and integrate it with other platforms with this practical guide Explore new design and mobile updates from the Odoo enterprise Book Description Odoo is an all-in-one management software that offers an array of business applications, forming a

complete suite of enterprise management applications. Odoo 11 comes with advances on usability, speed, and design. Working with Odoo 11 starts with how to set up Odoo, both online and on your own server. You'll then configure the basic company settings required to quickly get your first Odoo system up and running. Later, you'll explore customer relationship management in Odoo and its importance in a modern business environment. You'll then dive into purchasing applications with Odoo, learn some of the primary functionalities of ERP systems for manufacturing operations, and use analytic accounting to provide better reporting. After that, you'll learn how to work with Odoo for mobile, and finally, you will walk through the recent Odoo 11 features with respect to the community and enterprise edition, giving you a complete understanding of what Odoo can do for your business. What you will learn

- Configure a functioning customer relationship management system
- Set up a purchasing and receiving system
- Implement manufacturing operations and processes using real-world examples
- Discover the capabilities of Odoo's financial accounting and reporting features
- Integrate powerful human resource applications
- Utilize Odoo's project management application to organize tasks
- Customize Odoo without writing a line of code

Who this book is for This book is for beginners, and will help you learn advanced-level features with Odoo such as creating your own custom modules. You do not need any prior knowledge of Odoo. What is the difference between a virtual machine and a Docker container? A virtual machine (VM) is like a house. It is fully contained with its own plumbing and heating and cooling system. If you want another house, you build a new foundation, with new walls, new plumbing, and its own heating and cooling system. VMs are large. They start their own operating systems. Containers are like apartments in an apartment building. They share infrastructure. They can be many different sizes. You can have different sizes depending on the needs. Containers "live" in a Docker host. If you build a house, you need many resources. If you build an apartment building, each unit shares resources. Like an apartment, Docker is smaller and satisfies specific needs, is more agile, and more easily changed. This IBM® Redbooks® publication examines the installation and operation of Docker Enterprise Edition on the IBM Z® platform.

Over 50 recipes on the core features of Apache Mesos and running big data frameworks in Mesos About This Book Learn to install and configure Mesos to suit the needs of your organization Follow step-by-step instructions to deploy application frameworks on top of Mesos, saving you many hours of research and trial and error Use this practical guide packed with powerful recipes to implement Mesos and easily integrate it with other application frameworks Who This Book Is For This book is for system administrators, engineers, and big data programmers. Basic experience with big data technologies such as Hadoop or Spark would be useful but is not essential. A working knowledge of Apache Mesos is expected. What You Will Learn Set up Mesos on different operating systems Use the Marathon and Chronos frameworks to manage multiple applications Work with Mesos and Docker Integrate Mesos with Spark and other big data frameworks Use networking features in Mesos for effective communication between containers Configure Mesos for high availability using Zookeeper Secure your Mesos clusters with SASL and Authorization ACLs Solve everyday problems and discover the best practices In Detail Apache Mesos is open source cluster sharing and management software. Deploying and managing scalable applications in large-scale clustered environments can be difficult, but Apache Mesos makes it easier with efficient resource isolation and sharing across application frameworks. The goal of this book is to guide you through the practical implementation of the Mesos core along with a number of Mesos supported frameworks. You will begin by installing Mesos and then learn how to configure clusters and maintain them. You will also see how to deploy a cluster in a production environment with high availability using Zookeeper. Next, you will get to grips with using Mesos, Marathon, and Docker to build and deploy a PaaS. You will see how to schedule jobs with Chronos. We'll demonstrate how to integrate Mesos with big data frameworks such as Spark, Hadoop, and Storm. Practical solutions backed with clear examples will also show you how to deploy elastic big data jobs. You will find out how to deploy a scalable continuous integration and delivery system on Mesos with Jenkins. Finally, you will configure and deploy a highly scalable distributed search engine with Elasticsearch. Throughout the course of this book, you will get to know tips and tricks along with best practices to follow when working with Mesos. Style and approach This step-by-step guide is packed with powerful recipes on using Apache Mesos and shows its integration with containers and big data frameworks.

Mastering Ubuntu Server, Third Edition not only strengthens your server fundamentals but also equips you with the advanced concepts of Ubuntu 20.04 LTS. It polishes and expands your skill set to prepare you for better business opportunities.

The Only Official Google Cloud Study Guide The Official Google Cloud Certified Associate Cloud Engineer Study Guide, provides everything you need to prepare for this important exam and master the skills necessary to land that coveted Google Cloud Engineering certification. Beginning with a pre-book assessment quiz to evaluate what you know before you begin, each chapter features exam objectives and review questions, plus the online learning environment includes additional complete practice tests. Written by Dan Sullivan, a popular and experienced online course author for machine learning, big data, and Cloud topics, Official Google Cloud Certified Associate Cloud Engineer Study Guide is your ace in the hole for deploying and managing Google Cloud Services.

- Select the right Google service from the various choices based on the application to be built
- Compute with Cloud VMs and managing VMs
- Plan and deploying storage
- Network and configure access and security

Google Cloud Platform is a leading public cloud that provides its users to many of the same software, hardware, and networking infrastructure used to power Google services. Businesses, organizations, and individuals can launch servers in minutes, store petabytes of data, and implement global virtual clouds with the Google Cloud Platform. Certified Associate Cloud Engineers have demonstrated the knowledge and skills needed to deploy and operate infrastructure, services, and networks in the Google Cloud. This exam guide is designed to help you understand the Google Cloud Platform in depth so that you can meet the needs of those operating resources in the Google Cloud.

Mastering Rust, Second Edition covers a comprehensive list of topics that will help you gain deeper insights into the language. It will allow you how to create high performing applications effortlessly.

Arm yourself to make the most of the versatile, powerful Ubuntu Server with over 100 hands-on recipes About This Book Master the skills to setup secure and scalable web services with popular tools like Apache, Nginx, MySQL and HAProxy Set up your own cloud with Open Stack and quickly deploy applications with Docker or LXD Packed with clear, step-by-step recipes to let you protect you valuable data with your own chat servers, code hosting and collaboration tools. Who This Book Is For Ubuntu Server Cookbook is for system administrators or software developers with a basic understanding of the Linux operating system who want to set up their own servers. You are not required to have in-depth knowledge or hands-on experience with Ubuntu, but you should know the basics commands for directory navigation, file management, and the file editing tool. An understanding of computer networks is advisable What You Will Learn Set up high performance, scalable, and fault-tolerant back ends with web and database

servers Facilitate team communication with a real-time chat service and collaboration tools Quickly deploy your applications to their own containers and scale your infrastructure as and when needed Find out how to set up your own cloud infrastructure for your internal use or rent it to the public Ensure quick and easy access for your users while also securing your infrastructure from intruders Set up a high performance private network with a personal VPN server and centralized authentication system Swiftly start a content streaming service Set up network storage for private data and source code and say good bye to costly and unreliable cloud services In Detail Ubuntu is one of the most secure operating systems and defines the highest level of security as compared other operating system. Ubuntu server is a popular Linux distribution and the first choice when deploying a Linux server. It can be used with a \$35 Raspberry Pi to top-notch, thousand-dollar-per-month cloud hardware. Built with lists that there are 4 million + websites built using Ubuntu. With its easy-to-use package management tools and availability of well-known packages, we can quickly set up our own services such as web servers and database servers using Ubuntu. This book will help you develop the skills required to set up high performance and secure services with open source tools. Starting from user management and an in-depth look at networking, we then move on to cover the installation and management of web servers and database servers, as well as load balancing various services. You will quickly learn to set up your own cloud and minimize costs and efforts with application containers. Next, you will get to grips with setting up a secure real-time communication system. Finally, we'll explore source code hosting and various collaboration tools. By the end of this book, you will be able to make the most of Ubuntu's advanced functionalities. Style and approach This easy-to-follow guide contains a series of step-by-step recipes ranging from simple to complex. Each topic will start with basic introduction to each technology followed by a detailed step-by-step installation guide and then a detailed explanation of the approach taken during installation and the various advanced options available. The book not only implements Hyperledger Fabric, but also shows you how to build and model a blockchain network with Composer. You will master several business blockchain technologies under the Hyperledger umbrella, including Sawtooth, Iroha, decentralized Identity Hyperledger Indy, and Ethereum smart contract machine Burrow etc.

Your one-stop guide to the Robot Operating System About This Book Model your robot on a virtual world and learn how to simulate it Create, visualize, and process Point Cloud information Easy-to-follow, practical tutorials to program your own robots Who This Book Is For If you are a robotic enthusiast who wants to learn how to build and program your own robots in an easy-to-develop, maintainable, and shareable way, this book is for you. In order to make the most of the book, you should have a C++ programming background, knowledge of GNU/Linux systems, and general skill in computer science. No previous background on ROS is required, as this book takes you from the ground up. It is also advisable to have some knowledge of version control systems, such as svn or git, which are often used by the community to share code. What You Will Learn Install a complete ROS Hydro system Create ROS packages and metapackages, using and debugging them in real time Build, handle, and debug ROS nodes Design your 3D robot model and simulate it in a virtual environment within Gazebo Give your robots the power of sight using cameras and calibrate and perform computer vision tasks with them Generate and adapt the navigation stack to work with your robot Integrate different sensors like Range Laser, Arduino, and Kinect with your robot Visualize and process Point Cloud information from different sensors Control and plan motion of robotic arms with multiple joints using MoveIt! In Detail If you have ever tried building a robot, then you know how cumbersome programming everything from scratch can be. This is where ROS comes into the picture. It is a collection of tools, libraries, and conventions that simplifies the robot building process. What's more, ROS encourages collaborative robotics software development, allowing you to connect with experts in various fields to collaborate and build upon each other's work. Packed full of examples, this book will help you understand the ROS framework to help you build your own robot applications in a simulated environment and share your knowledge with the large community supporting ROS. Starting at an introductory level, this book is a comprehensive guide to the fascinating world of robotics, covering sensor integration, modeling, simulation, computer vision, navigation algorithms, and more. You will then go on to explore concepts like topics, messages, and nodes. Next, you will learn how to make your robot see with HD cameras, or navigate obstacles with range sensors. Furthermore, thanks to the contributions of the vast ROS community, your robot will be able to navigate autonomously, and even recognize and interact with you in a matter of minutes. What's new in this updated edition? First and foremost, we are going to work with ROS Hydro this time around. You will learn how to create, visualize, and process Point Cloud information from different sensors. This edition will also show you how to control and plan motion of robotic arms with multiple joints using MoveIt! By the end of this book, you will have all the background you need to build your own robot and get started with ROS. Style and approach This book is an easy-to-follow guide that will help you find your way through the ROS framework. This book is packed with hands-on examples that will help you program your robot and give you complete solutions using ROS open source libraries and tools.

??? Explore Ubuntu OS ??? You've probably used Windows OS; maybe you've used MacOS. But Linux? Linux has been around for years, but it's still relatively unused by the masses. This isn't to say it isn't powerful. Some argue that it's more powerful than any OS out there. This book will cover arguably the most popular version of Linux: Ubuntu. You'll learn about: Installing Ubuntu Where things are An overview of the core features An overview of the software Using Ubuntu Utilities Using Ubuntu settings And more The book is intended for beginners who have never used Ubuntu or are still considering whether or not they want to download it.

A new book designed for SysAdmins, Operations staff, Developers and DevOps who are interested in deploying a log management solution using the open source tool Logstash. In this book we will walk you through installing, deploying, managing and extending Logstash. We'll teach you how to: * Install and deploy Logstash. * Ship events from a Logstash Shipper to a central Logstash server. * Filter incoming events using a variety of techniques. * Output those events to a selection of useful destinations. * Use Logstash's awesome web interface Kibana. * Scale out your Logstash implementation as your environment grows. * Quickly and easily extend Logstash to deliver additional functionality you might need. By the end of the book you should have a functional and effective log management solution that you can deploy into your own environment.

Learn how to get started with robotics programming using Robot Operation System (ROS). Targeted for absolute beginners in ROS, Linux, and Python, this short guide shows you how to build your own robotics projects. ROS is an open-source and flexible framework for writing robotics software. With a hands-on approach and sample projects, Robot Operating System for Absolute Beginners will enable you to begin your first robot project. You will learn the basic concepts of working with ROS and begin coding with ROS APIs in both C++ and Python. What You'll Learn Install ROS Review fundamental ROS concepts Work with frequently used commands in ROS Build a mobile robot from scratch using ROS Who This Book Is For Absolute beginners with little to no

programming experience looking to learn robotics programming.

This book is a mini-course for researchers in the atmospheric and oceanic sciences. "We assume readers will already know the basics of programming... in some other language." - Back cover.

Master serverless architectures in Python and their implementation, with Zappa on three different frameworks. Key Features Scalable serverless Python web services using Django, Flask, and Pyramid. Learn Asynchronous task execution on AWS Lambda and scheduling using Zappa. Implementing Zappa in a Docker container. Book Description Serverless applications are becoming very popular these days, not just because they save developers the trouble of managing the servers, but also because they provide several other benefits such as cutting heavy costs and improving the overall performance of the application. This book will help you build serverless applications in a quick and efficient way. We begin with an introduction to AWS and the API gateway, the environment for serverless development, and Zappa. We then look at building, testing, and deploying apps in AWS with three different frameworks--Flask, Django, and Pyramid. Setting up a custom domain along with SSL certificates and configuring them with Zappa is also covered. A few advanced Zappa settings are also covered along with securing Zappa with AWS VPC. By the end of the book you will have mastered using three frameworks to build robust and cost-efficient serverless apps in Python. What you will learn Build, test, and deploy a simple web service using AWS CLI Integrate Flask-based Python applications, via AWS CLI configuration Design Rest APIs integrated with Zappa for Flask and Django Create a project in the Pyramid framework and configure it with Zappa Generate SSL Certificates using Amazon Certificate Manager Configure custom domains with AWS Route 53 Create a Docker container similar to AWS Lambda Who this book is for Python Developers who are interested in learning how to develop fast and highly scalable serverless applications in Python, will find this book useful

Ubuntu Linux--the most popular Linux distribution on the planet--preserves the spirit embodied in the ancient African word ubuntu, which means both "humanity to others" and "I am what I am because of who we all are." Ubuntu won the Linux Journal Reader's Choice Award for best Linux distribution and is consistently the top-ranked Linux variant on DistroWatch.com. The reason this distribution is so widely popular is that Ubuntu is designed to be useful, usable, customizable, and always available for free worldwide. Ubuntu Hacks is your one-stop source for all of the community knowledge you need to get the most out of Ubuntu: a collection of 100 tips and tools to help new and experienced Linux users install, configure, and customize Ubuntu. With this set of hacks, you can get Ubuntu Linux working exactly the way you need it to. Learn how to: Install and test-drive Ubuntu Linux. Keep your system running smoothly Turn Ubuntu into a multimedia powerhouse: rip and burn discs, watch videos, listen to music, and more Take Ubuntu on the road with Wi-Fi wireless networking, Bluetooth, etc. Hook up multiple displays and enable your video card's 3-D acceleration Run Ubuntu with virtualization technology such as Xen and VMware Tighten your system's security Set up an Ubuntu-powered server Ubuntu Hacks will not only show you how to get everything working just right, you will also have a great time doing it as you explore the powerful features lurking within Ubuntu. "Put in a nutshell, this book is a collection of around 100 tips and tricks which the authors choose to call hacks, which explain how to accomplish various tasks in Ubuntu Linux. The so called hacks range from down right ordinary to the other end of the spectrum of doing specialised things...More over, each and every tip in this book has been tested by the authors on the latest version of Ubuntu (Dapper Drake) and is guaranteed to work. In writing this book, it is clear that the authors have put in a lot of hard work in covering all facets of configuring this popular Linux distribution which makes this book a worth while buy." -- Ravi Kumar, Slashdot.org

What has made Ubuntu the most popular Linux distribution in recent years? It's the emphasis on ease of installation and use. It gets even easier when paired with Ubuntu Linux For Dummies. This friendly reference shows you how to run Ubuntu directly from CD-ROM and install it on a PC as a personal workstation and network server. You'll find out how to download Ubuntu and start using it right away. You'll also discover how to: Connect to a LAN via a wireless and Ethernet Use OpenOffice.org and Mozilla Firefox drawing and editing Tap into multimedia, graphics and other applications using Ubuntu Create services for a home or small business network Generate and manage web pages, print services, and more Find helpful information about Ubuntu and Linux Troubleshoot and fix problems "Ubuntu" means "humanity toward others." Operating system guidebooks don't get any more humane than Ubuntu Linux For Dummies.

Use Vagrant to easily build complete development environments Key Features Implement DevOps with Vagrant effectively Integrate Vagrant with different tools such as Puppet, Chef, and Docker Manage infrastructure with a practical approach Book Description Hands-On DevOps with Vagrant teaches you how to use Vagrant as a powerful DevOps tool and gives an overview of how it fits into the DevOps landscape. You will learn how to install VirtualBox and Vagrant in Windows, macOS, and Linux. You will then move on to understanding Vagrant commands, discovering its boxes and Vagrant Cloud. After getting to grips with the basics, the next set of chapters helps you to understand how to configure Vagrant, along with networking. You will explore multimachine, followed by studying how to create multiple environments and the communication between them. In addition to this, you will cover concepts such as Vagrant plugins and file syncing. The last set of chapters provides insights into provisioning shell scripts, also guiding you in how to use Vagrant with configuration management tools such as Chef, Ansible, Docker, Puppet, and Salt. By the end of this book, you will have grasped Vagrant's features and how to use them for your benefit with the help of tips and tricks. What you will learn Explore what development features Vagrant offers Install Vagrant and VirtualBox on Windows, macOS and Linux Harness the power of Vagrant to create powerful development environments Utilize DevOps tools such as Docker, Chef, and Puppet Understand everything about Vagrant, including networking, plugins, and provisioning Use the Vagrant Cloud to install and manage Vagrant boxes Who this book is for Hands-On DevOps with Vagrant is for you if you are a system administrator, DevOps engineer, DevOps architect, or any stakeholder working with DevOps and wanting to explore Vagrant. Experience in system administration is needed to enjoy this book.

Learn how to install, configure and implement the Elastic Stack (Elasticsearch, Logstash and Kibana) – the invaluable tool for anyone deploying a centralized log management solution for servers and apps. You will see how to use and configure Elastic Stack independently and alongside Puppet. Each chapter includes real-world examples and practical troubleshooting tips, enabling you to get up and running with Elastic Stack in record time. Fully customizable and easy to use, Elastic Stack enables you to be on top of your servers all the time, and resolve problems for your clients as fast as possible. Supported by Puppet and available with various plugins. Get started with Beginning Elastic Stack today and see why many consider Elastic Stack the best option for server log management. What You Will Learn: Install and configure Logstash Use Logstash with Elasticsearch and Kibana Use Logstash with Puppet and Foreman Centralize data processing Who This Book Is For: Anyone working on multiple servers who needs to search their logs using a web interface. It is ideal for server administrators who have just started their job and need to look after multiple servers efficiently.

How long does it take for your website to load? Web performance is just as critical for small and medium-sized websites as it is for massive websites that receive tons of hits. Before you pour money and time into rewriting your code or replacing your infrastructure, first consider a reverse-caching proxy server like Varnish. With this practical book, you'll learn how Varnish can give your website or API an immediate performance boost. Varnish mimicks the behavior of your webserver, caches its output in memory, and serves the result directly to clients without having to access your webserver. If you're a web developer familiar with HTTP, this book helps you master Varnish basics, so you can get up and running in no time. You'll learn how to use the Varnish Configuration Language and HTTP best practices to achieve faster performance and a higher hit rate. Understand how Varnish helps you gain optimum web performance Use HTTP to improve the cache-ability of your websites, web applications, and APIs Properly invalidate your cache when the origin data changes Optimize access to your backend servers Avoid common mistakes when using Varnish in the wild Use logging and debugging tools to examine the behavior of Varnish Leverage the power of deep learning and Keras to develop smarter and more efficient data models Key Features Understand different neural networks and their implementation using Keras Explore recipes for training and fine-tuning your neural network models Put your deep learning knowledge to practice with real-world use-cases, tips, and tricks Book Description Keras has quickly emerged as a popular deep learning library. Written in Python, it allows you to train convolutional as well as recurrent neural networks with speed and accuracy. The Keras Deep Learning Cookbook shows you how to tackle different problems encountered while training efficient deep learning models, with the help of the popular Keras library. Starting with installing and setting up Keras, the book demonstrates how you can perform deep learning with Keras in the TensorFlow. From loading data to fitting and evaluating your model for optimal performance, you will work through a step-by-step process to tackle every possible problem faced while training deep models. You will implement convolutional and recurrent neural networks, adversarial networks, and more with the help of this handy guide. In addition to this, you will learn how to train these models for real-world image and language processing tasks. By the end of this book, you will have a practical, hands-on understanding of how you can leverage the power of Python and Keras to perform effective deep learning What you will learn Install and configure Keras in TensorFlow Master neural network programming using the Keras library Understand the different Keras layers Use Keras to implement simple feed-forward neural networks, CNNs and RNNs Work with various datasets and models used for image and text classification Develop text summarization and reinforcement learning models using Keras Who this book is for Keras Deep Learning Cookbook is for you if you are a data scientist or machine learning expert who wants to find practical solutions to common problems encountered while training deep learning models. A basic understanding of Python and some experience in machine learning and neural networks is required for this book.

Use Linux containers as an alternative virtualization technique to virtualize your operating system environment. This book will cover LXC's unmatched flexibility with virtualization and LXD's smooth user experience. Practical LXC and LXD begins by introducing you to Linux containers (LXC and LXD). You will then go through use cases based on LXC and LXD. Next, you will see the internal workings of LXC and LXD by considering the repositories and templates used. You will then learn how to integrate LXC and LXD with common virtualization and orchestration tools such as libvirt and SaltStack. Finally, you will dive into containerization and security. The book will explore some of the common problems in security and provide a case study on how containerization can help mitigate some of the operating system-level security issues in an IoT environment. What You Will Learn Get an introduction to Linux containers Discover the basics of LXC and LXD See use cases that can be solved with LXC and LXD – for developers, devops, and system administrators Master LXC and LXD repositories Use LXC and LXD with common virtualization and orchestration tools Consider a containerization and security in IoT case study Who This Book Is For The audience for this book should have basic knowledge of Linux and software development in general. The intended readership is primarily software developers, operations engineers, and system administrators who are interested in devops, though managers and enthusiasts will also benefit from this book.

This timely text/reference describes the development and implementation of large-scale distributed processing systems using open source tools and technologies. Comprehensive in scope, the book presents state-of-the-art material on building high performance distributed computing systems, providing practical guidance and best practices as well as describing theoretical software frameworks. Features: describes the fundamentals of building scalable software systems for large-scale data processing in the new paradigm of high performance distributed computing; presents an overview of the Hadoop ecosystem, followed by step-by-step instruction on its installation, programming and execution; Reviews the basics of Spark, including resilient distributed datasets, and examines Hadoop streaming and working with Scalding; Provides detailed case studies on approaches to clustering, data classification and regression analysis; Explains the process of creating a working recommender system using Scalding and Spark.

IBM® z/OS® Container Extensions (IBM zCX) is a new feature of the next version of the IBM z/OS Operating System (z/OS V2.4). It makes it possible to run Linux on IBM Z® applications that are packaged as Docker container images on z/OS. Application developers can develop, and data centers can operate, popular open source packages, Linux applications, IBM software, and third-party software together with z/OS applications and data. This IBM Redbooks® publication helps you to understand the concepts, business perspectives and reference architecture for installing, tailoring, and configuring zCX in your own environment.

Create Deep Learning and Reinforcement Learning apps for multiple platforms with TensorFlow Key Features Build TensorFlow-powered AI applications for mobile and embedded devices Learn modern AI topics such as computer vision, NLP, and deep reinforcement learning Get practical insights and exclusive working code not available in the TensorFlow documentation Book Description As a developer, you always need to keep an eye out and be ready for what will be trending soon, while also focusing on what's trending currently. So, what's better than learning about the integration of the best of both worlds, the present and the future? Artificial Intelligence (AI) is widely regarded as the next big thing after mobile, and Google's TensorFlow is the leading open source machine learning framework, the hottest branch of AI. This book covers more than 10 complete iOS, Android, and Raspberry Pi apps powered by TensorFlow and built from scratch, running all kinds of cool TensorFlow models offline on-device: from computer vision, speech and language processing to generative adversarial networks and AlphaZero-like deep reinforcement learning. You'll learn how to use or retrain existing TensorFlow models, build your own models, and develop intelligent mobile apps running those TensorFlow models. You'll learn how to quickly build such apps with step-by-step tutorials and how to avoid many pitfalls in the process with lots of hard-earned troubleshooting tips. What you will learn Classify images with transfer learning Detect objects and their locations Transform pictures with amazing art styles Understand simple speech commands Describe images in natural language Recognize drawing with Convolutional Neural Network and Long Short-Term Memory Predict stock price with Recurrent Neural Network in TensorFlow and Keras Generate and enhance images with generative adversarial networks Build AlphaZero-like mobile game app in TensorFlow and Keras Use TensorFlow Lite and Core ML on mobile Develop TensorFlow apps on Raspberry Pi that can move, see, listen, speak, and learn Who this book is for If you're an iOS/Android developer interested in building and retraining others' TensorFlow models and running them in your mobile apps, or if you're a TensorFlow developer and want to run your new and amazing TensorFlow models on mobile devices, this book is for you. You'll also benefit from this book if you're interested in TensorFlow Lite, Core ML, or TensorFlow on Raspberry Pi.

Learn how to use Odoo, a resourceful, open source business application platform designed to transform and modernize your business About This Book Configure, manage, and customize Odoo to fit the needs of your business Learn about the new Odoo 8 website builder and e-commerce features that are seamlessly integrated with Odoo's business applications Perform step-by-step configurations of the most important Odoo applications using real-world examples Who This Book Is For This book is perfect for people who have never used Odoo and

for those who would like to learn about more advanced features such as creating your own custom modules. In order to get the most out of this book, you should be comfortable with downloading and installing software and understand basic business concepts such as sales, purchasing, inventory management, and basic accounting. What You Will Learn Configure a functioning customer relationship management system Set up a purchasing and receiving system for your company that allows you to track inventory, costs, and profit Implement manufacturing operations and processes using real-world examples that you can put to use in your own company Discover the capabilities of Odoo's financial accounting and reporting features Integrate powerful human resource applications that simplify the collection and management of employee information Utilize Odoo's full featured project management application to organize tasks and track time and costs associated with billable projects Customize Odoo without writing a line a code In Detail Odoo continues to gain momentum throughout the world in regards to providing the best platform for open source ERP installations. Now with Odoo 8, you have access to a powerful website builder, integrated e-commerce features, and a fast-growing community to help transform and modernize your business. With this practical guide, you will cover the essential modules to get Odoo up and running for your company. After installing Odoo, you will use its sales management application to enter quotes, create sales orders, and invoice customers. You will then learn how to integrate the CRM application to manage your leads and convert them into lucrative opportunities and sales. Next, you will set up your own purchase management system, assigning products to suppliers and tracking orders with the new warehouse management and routing system. Finally, you will learn how to use analytics to track project expenses and keep your accounts simple and easy to maintain and build an Odoo module to extend its functionality and make it work for you. Working with Odoo covers all the core installation and usage functionalities of this popular tool, helping you to fully implement a working ERP system through practical, advanced, real-world examples. Style and approach This book is a practical guide that uses real-world examples to teach you how to implement Odoo into your business.

A guide to Ubuntu covers such topics as installation, configuration, the filesystem, the command line, system maintenance and security, networking, using OpenOffice.org, Web browsing, and playing games.

Perform efficient fast text representation and classification with Facebook's fastText library Key Features Introduction to Facebook's fastText library for NLP Perform efficient word representations, sentence classification, vector representation Build better, more scalable solutions for text representation and classification Book Description Facebook's fastText library handles text representation and classification, used for Natural Language Processing (NLP). Most organizations have to deal with enormous amounts of text data on a daily basis, and gaining efficient data insights requires powerful NLP tools such as fastText. This book is your ideal introduction to fastText. You will learn how to create fastText models from the command line, without the need for complicated code. You will explore the algorithms that fastText is built on and how to use them for word representation and text classification. Next, you will use fastText in conjunction with other popular libraries and frameworks such as Keras, TensorFlow, and PyTorch. Finally, you will deploy fastText models to mobile devices. By the end of this book, you will have all the required knowledge to use fastText in your own applications at work or in projects. What you will learn Create models using the default command line options in fastText Understand the algorithms used in fastText to create word vectors Combine command line text transformation capabilities and the fastText library to implement a training, validation, and prediction pipeline Explore word representation and sentence classification using fastText Use Gensim and spaCy to load the vectors, transform, lemmatize, and perform other NLP tasks efficiently Develop a fastText NLP classifier using popular frameworks, such as Keras, Tensorflow, and PyTorch Who this book is for This book is for data analysts, data scientists, and machine learning developers who want to perform efficient word representation and sentence classification using Facebook's fastText library. Basic knowledge of Python programming is required.

Complete beginner guide to WiFi hacking. If you don't even know what Kali Linux is that's fine then this is for you. This books covers everything from downloading to installing on your computer to installing on a live USB. It's idiot proof just follow the links then once you have your installation follow more links for the cheapest and best equipment on Amazon, if you can find cheaper or better stuff buy it, if not your covered. This book gets you started cheap fast and easy, have a problem contact the author his email is provided. This book is also a general life guide. Ever wonder why things are the way they are, its in here. The on thing not in this book is smoke, no smoke and mirrors are used, to learn Kali Linux is easy, or just copy and paste the work is done for you, but that wont guarantee you success scripts only get you so far. If you actually want to try it for real or learn it for real this is for you if your expecting an app that magically gives you WiFi passwords I hate to break it to you once that disappoints you you'll have to face up to Santa Clause and The Easter Bunny, oh and The Tooth Fairy. Ever wonder why Mark Garafallo hates capitalism but is a complete capitalist and dependent on capitalism it's in here. Wonder why is Chris Evans intimidated by James Dean being cast in a new movie, it's in here. Want to learn how to spend a tax credit, well actually you can't but the reason why you can't is in here. Plus a heart felt plea to Robert Deniro to just shut up, and to please stop having strokes in The Irishman, or as he thinks of it giving a beat down. Do you just want to have some fun? That's defiantly in here. Remember smoking I'm having one right now and IT'S IN HERE! Come on along and enjoy the ride.

This IBM® Redbooks® publication is Volume 4 of a series of books entitled The Virtualization Cookbook for IBM z Systems. The other volumes in the series are: The Virtualization Cookbook for IBM z Systems Volume 1: IBM z/VM 6.3, SG24-8147 The Virtualization Cookbook for IBM z Systems Volume 2: Red Hat Enterprise Linux 7.1 Servers, SG24-8303 The Virtualization Cookbook for IBM z Systems Volume 3: SUSE Linux Enterprise Server 12, SG24-8890 It is advised that you start with Volume 1 of this series, because the IBM z/VM® Hypervisor is the foundation for installing Linux on IBM zTM Systems.

Learn a new statically compiled programming language to build maintainable and fast software with the help of this comprehensive guide to V programming Key Features Explore the features of the V programming language step by step with this beginner's guide Gain strong foundational knowledge of core programming concepts such as modules, functions, and structs Learn how to write super-fast programs and applications that compile in a matter of seconds Book Description A new language on the block, V comes with a promising set of features such as fast compilation and interoperability with other programming languages. This is the first book on the V programming language, packed with

concise information and a walkthrough of all the features you need to know to get started with the language. The book begins by covering the fundamentals to help you learn about the basic features of V and the suite of built-in libraries available within the V ecosystem. You'll become familiar with primitive data types, declaring variables, arrays, and maps. In addition to basic programming, you'll develop a solid understanding of the building blocks of programming, including functions, structs, and modules in the V programming language. As you advance through the chapters, you'll learn how to implement concurrency in V Programming, and finally learn how to write test cases for functions. This book takes you through an end-to-end project that will guide you to build fast and maintainable RESTful microservices by leveraging the power of V and its built-in libraries. By the end of this V programming book, you'll be well-versed with the V programming language and be able to start writing your own programs and applications. What you will learn Become familiar with the basic building blocks of programming in the V language Install the V language on various operating systems Understand how to work with arrays and maps in V programming Discover how to implement concurrency in V programming Understand best practices of sharing memory by letting coroutines communicate with each other using channels in V Write modular code and build on your knowledge of structs and functions in V Get acquainted with writing tests in V programming Get to grips with building and querying RESTful microservice in V Who this book is for Whether you're a beginner interested in learning a programming language or an experienced programmer looking to switch to a new and better statically compiled programming language, this V programming book is for you.

Design and implement professional-level programs by leveraging modern data structures and algorithms in Rust Key Features Improve your productivity by writing more simple and easy code in Rust Discover the functional and reactive implementations of traditional data structures Delve into new domains of Rust, including WebAssembly, networking, and command-line tools Book Description Rust is a powerful language with a rare combination of safety, speed, and zero-cost abstractions. This Learning Path is filled with clear and simple explanations of its features along with real-world examples, demonstrating how you can build robust, scalable, and reliable programs. You'll get started with an introduction to Rust data structures, algorithms, and essential language constructs. Next, you will understand how to store data using linked lists, arrays, stacks, and queues. You'll also learn to implement sorting and searching algorithms, such as Brute Force algorithms, Greedy algorithms, Dynamic Programming, and Backtracking. As you progress, you'll pick up on using Rust for systems programming, network programming, and the web. You'll then move on to discover a variety of techniques, right from writing memory-safe code, to building idiomatic Rust libraries, and even advanced macros. By the end of this Learning Path, you'll be able to implement Rust for enterprise projects, writing better tests and documentation, designing for performance, and creating idiomatic Rust code. This Learning Path includes content from the following Packt products: Mastering Rust - Second Edition by Rahul Sharma and Vesa Kaihlavirta Hands-On Data Structures and Algorithms with Rust by Claus Matzinger What you will learn Design and implement complex data structures in Rust Create and use well-tested and reusable components with Rust Understand the basics of multithreaded programming and advanced algorithm design Explore application profiling based on benchmarking and testing Study and apply best practices and strategies in error handling Create efficient web applications with the Actix-web framework Use Diesel for type-safe database interactions in your web application Who this book is for If you are already familiar with an imperative language and now want to progress from being a beginner to an intermediate-level Rust programmer, this Learning Path is for you. Developers who are already familiar with Rust and want to delve deeper into the essential data structures and algorithms in Rust will also find this Learning Path useful.

Build a variety of awesome robots that can see, sense, move, and do a lot more using the powerful Robot Operating System About This Book Create and program cool robotic projects using powerful ROS libraries Work through concrete examples that will help you build your own robotic systems of varying complexity levels This book provides relevant and fun-filled examples so you can make your own robots that can run and work Who This Book Is For This book is for robotic enthusiasts and researchers who would like to build robot applications using ROS. If you are looking to explore advanced ROS features in your projects, then this book is for you. Basic knowledge of ROS, GNU/Linux, and programming concepts is assumed. What You Will Learn Create your own self-driving car using ROS Build an intelligent robotic application using deep learning and ROS Master 3D object recognition Control a robot using virtual reality and ROS Build your own AI chatter-bot using ROS Get to know all about the autonomous navigation of robots using ROS Understand face detection and tracking using ROS Get to grips with teleoperating robots using hand gestures Build ROS-based applications using Matlab and Android Build interactive applications using TurtleBot In Detail Robot Operating System is one of the most widely used software frameworks for robotic research and for companies to model, simulate, and prototype robots. Applying your knowledge of ROS to actual robotics is much more difficult than people realize, but this title will give you what you need to create your own robotics in no time! This book is packed with over 14 ROS robotics projects that can be prototyped without requiring a lot of hardware. The book starts with an introduction of ROS and its installation procedure. After discussing the basics, you'll be taken through great projects, such as building a self-driving car, an autonomous mobile robot, and image recognition using deep learning and ROS. You can find ROS robotics applications for beginner, intermediate, and expert levels inside! This book will be the perfect companion for a robotics enthusiast who really wants to do something big in the field. Style and approach This book is packed with fun-filled, end-to-end projects on mobile, armed, and flying robots, and describes the ROS implementation and execution of these models.

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