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Cloud Native Programming with Golang Building Serverless Microservices in Python Python for DevOps Pragmatic AI Cloud Native Infrastructure Hands-On Docker for Microservices with Python Cloud Native Patterns Python Microservices Development Cloud Native Python RPC: Up and Running Cloud Native Go Cloud-Native Applications in Java Building User Interface Using React And Flux Deploying to OpenShift Kubernetes Cookbook Camel Design Patterns Cloud Native DevOps with Kubernetes Cloud Native Transformation Cloud Native Hands-On Cloud-Native Applications with Java and Quarkus Hands-On Serverless Computing with Google Cloud Mastering Python Design Patterns Getting Started with Cloud-native Python Container Security Architecting Cloud Native Applications Google Cloud Platform for Developers Grpc: Up and Running Cloud Native Data Center Networking SAP Cloud Platform Mastering Distributed Tracing Kubernetes Patterns gRPC: Up and Running Python for Continuous Delivery and Application Security Beginning Quarkus Framework Hands-On Cloud-Native Microservices with Jakarta EE Flask Web Development Cloud Native Architectures Cloud Native Python Python Programming Blueprints Building Intelligent Cloud Applications

[Cloud Native Programming with Golang](#)

Get a comprehensive understanding of gRPC fundamentals through real-world examples. With this practical guide, you'll learn how this high-performance interprocess communication protocol is capable of connecting polyglot services in microservices architecture, while providing a rich framework for defining service contracts and data types. Complete with hands-on examples written in Go, Java, Node, and Python, this book also covers the essential techniques and best practices to use gRPC in production systems. Authors Kasun Indrasiri and Danesh Kuruppu discuss the importance of gRPC in the context of microservices development.

[Building Serverless Microservices in Python](#)

Kubernetes is becoming the de-facto standard for container orchestration and distributed applications management across a microservices framework. With this practical cookbook, you'll learn hands-on recipes for automating the deployment, scaling, and operations of application containers across clusters of hosts. The book's easy-lookup problem-solution-discussion format helps you find the detailed answers you need—quickly. Kubernetes lets you deploy your applications quickly and predictably, so you can efficiently respond to customer demand. This cookbook, ideal for developers and system administrators alike, provides the essential knowledge you need to get there. You'll find recipes for: Kubernetes installation Kubernetes API, API groups Application primitives Monitoring Troubleshooting

[Python for DevOps](#)

"Businesses today are evolving so rapidly that having their own infrastructure to support their expansion is not feasible. As a result, they have been resorting to the elasticity of the cloud to provide a platform to build and deploy their highly scalable applications. This video will be the one stop for you to learn all about building cloud-native architectures in Python. It will begin by introducing you to cloud-native architecture and will help break it down for you. Then you'll learn how to build microservices in Python using REST APIs in an event driven approach and you will build the web layer. Next, you'll learn about Interacting data services and building Web views with React, after which we will take a detailed look at application security and performance. Then, you'll also learn how to Dockerize your services. And finally, you'll learn how to deploy the application on the AWS and Azure platforms. We will end the video by discussing some concepts and techniques around troubleshooting problems that might occur with your applications after you've deployed them. This video will teach you how to craft applications that are built as small standard units, using all the proven best practices and avoiding the usual traps. It's a practical video: we're going to build everything using Python 3 and its amazing tooling ecosystem. The video will take you on a journey, the destination of which, is the creation of a complete Python application based on microservices over the cloud platform."--Resource description page.

[Pragmatic AI](#)

A step-by-step guide to building microservices using Python and Docker, along with managing and orchestrating them with Kubernetes Key Features Learn to use Docker containers to create, operate, and deploy your microservices Create workflows to manage independent deployments on coordinating services using CI and GitOps through GitHub, Travis CI, and Flux Develop a REST microservice in Python using the Flask framework and Postgres database Book Description Microservices architecture helps create complex systems with multiple, interconnected services that can be maintained by independent teams working in parallel. This book guides you on how to develop these complex systems with the help of containers. You'll start by learning to design an efficient strategy for migrating a legacy monolithic system to microservices. You'll build a RESTful microservice with Python and learn how to encapsulate the code for the services into a container using Docker. While developing the services, you'll understand how to use tools such as GitHub and Travis CI to ensure continuous delivery (CD) and continuous integration (CI). As the systems become complex and grow in size, you'll be introduced to Kubernetes and explore how to orchestrate a system of containers while managing multiple services. Next, you'll configure Kubernetes clusters for production-ready environments and secure them for reliable deployments. In the concluding chapters, you'll learn how to detect and debug critical problems with the help of logs and metrics. Finally, you'll discover a variety of strategies for working with multiple teams dealing with different microservices for effective collaboration. By the end of this book, you'll be able to build production-grade microservices as well as orchestrate a complex system of services using containers. What you will learn Discover how to design, test, and operate scalable microservices Coordinate and deploy different services using Kubernetes Use Docker to construct scalable and manageable applications with microservices Understand how to monitor a complete system to ensure early detection of problems Become well versed with migrating from an existing monolithic system to a microservice one Use load balancing to ensure seamless operation between the old monolith and the new service Who this book is for This book is for developers, engineers, or software architects who are trying to move away from traditional approaches for building complex multi-service systems by adopting microservices and containers. Although familiarity with Python programming is assumed, no prior knowledge of Docker is required.

[Cloud Native Infrastructure](#)

Practical techniques to build apps that dynamically scale to handle any volume of data, traffic, or users About This Video This is the only reliable resource that showcases the tools and techniques you need build robust and resilient cloud-native applications in Python Learn how to architect your application on both, the AWS and Azure clouds for high availability Assess, monitor, and troubleshoot your applications in the cloud In Detail Businesses today are evolving so rapidly that having their own infrastructure to support their expansion is not feasible. As a result, they have been resorting to the elasticity of the cloud to provide a platform to build and deploy their highly scalable applications. This video will be the one stop for you to learn all about building cloud-native architectures in Python. You'll learn about interacting data services and building Web views with React, after which we will take a detailed look at application security and performance.

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[Hands-On Docker for Microservices with Python](#)

Highly available microservice-based web apps for Cloud with Java Key Features Take advantage of the simplicity of Spring to build a full-fledged application Let your applications run faster while generating smaller cloud service bills Integrate your application with various tools such as Docker and Elasticsearch and use specific tools in Azure and AWS Book Description Businesses today are evolving so rapidly that they are resorting to the elasticity of the cloud to provide a platform to build and deploy their highly scalable applications. This means developers now are faced with the challenge of building build applications that are native to the cloud. For this, they need to be aware of the environment, tools, and resources they're coding against. If you're a Java developer who wants to build secure, resilient, robust, and scalable applications that are targeted for cloud-based deployment, this is the book for you. It will be your one stop guide to building cloud-native applications in Java Spring that are hosted in On-prem or cloud providers - AWS and Azure The book begins by explaining the driving factors for cloud adoption and shows you how cloud deployment is different from regular application deployment on a standard data centre. You will learn about design patterns specific to applications running in the cloud and find out how you can build a microservice in Java Spring using REST APIs You will then take a deep dive into the lifecycle of building, testing, and deploying applications with maximum automation to reduce the deployment cycle time. Gradually, you will move on to configuring the AWS and Azure platforms and working with their APIs to deploy your application. Finally, you'll take a look at API design concerns and their best practices. You'll also learn how to migrate an existing monolithic application into distributed cloud native applications. By the end, you will understand how to build and monitor a scalable, resilient, and robust cloud native application that is always available and fault tolerant. What you will learn See the benefits of the cloud environment when it comes to variability, provisioning, and tooling support Understand the architecture patterns and considerations when developing on the cloud Find out how to perform cloud-native techniques/patterns for request routing, RESTful service creation, Event Sourcing, and more Create Docker containers for microservices and set up continuous integration using Jenkins Monitor and troubleshoot an application deployed in the cloud environment Explore tools such as Docker and Kubernetes for containerization and the ELK stack for log aggregation and visualization Use AWS and Azure specific tools to design, develop, deploy, and manage applications Migrate from monolithic architectures to a cloud native deployment Who this book is for Java developers who want to build secure, resilient, robust and scalable applications that are targeted for cloud based deployment, will find this book helpful. Some knowledge of Java, Spring, web programming and public cloud providers (AWS, Azure) should be sufficient to get you through the book.

[Cloud Native Patterns](#)

If you want to study, build, or simply validate your thinking about modern cloud native data center networks, this is your book. Whether you're pursuing a multitenant private cloud, a network for running machine learning, or an enterprise data center, author Dinesh Dutt takes you through the steps necessary to design a data center that's affordable, high capacity, easy to manage, agile, and reliable. Ideal for network architects, data center operators, and network and containerized application developers, this book mixes theory with practice to guide you through the architecture and protocols you need to create and operate a robust, scalable network infrastructure. The book offers a vendor-neutral way to look at network design. For those interested in open networking, this book is chock-full of examples using open source software, from FRR to Ansible. In the context of a cloud native data center, you'll examine: Clos topology Network disaggregation Network operating system choices Routing protocol choices Container networking Network virtualization and EVPN Network automation

[Python Microservices Development](#)

Developers often struggle when first encountering the cloud. Learning about distributed systems, becoming familiar with technologies such as containers and functions, and knowing how to put everything together can be daunting. With this practical guide, you'll get up to speed on patterns for building cloud native applications and best practices for common tasks such as messaging, eventing, and DevOps. Authors Boris Scholl, Trent Swanson, and Peter Jausovec describe the architectural building blocks for a modern cloud native application. You'll learn how to use microservices, containers, serverless computing, storage types, portability, and functions. You'll also explore the fundamentals of cloud native applications, including how to design, develop, and operate them. Explore the technologies you need to design a cloud native application Distinguish between containers and functions, and learn when to use them Architect applications for data-related requirements Learn DevOps fundamentals and practices for developing, testing, and operating your applications Use tips, techniques, and best practices for building and managing cloud native applications Understand the costs and trade-offs necessary to make an application portable

[Cloud Native Python](#)

Learn and understand the need to architect cloud applications and migrate your business to cloud efficiently Key Features Understand the core design elements required to build scalable systems Plan resources and technology stacks effectively for high security and fault tolerance Explore core architectural principles using real-world examples Book Description Cloud computing has proven to be the most revolutionary IT development since virtualization. Cloud native architectures give you the benefit of more flexibility over legacy systems. To harness this, businesses need to refresh their development models and architectures when they find they don't port to the cloud. Cloud Native Architectures demonstrates three essential components of deploying modern cloud native architectures: organizational transformation, deployment modernization, and cloud native architecture patterns. This book starts with a quick introduction to cloud native architectures that are used as a base to define and explain what cloud native architecture is and is not. You will learn what a cloud adoption framework looks like and develop cloud native architectures using microservices and serverless computing as design principles. You'll then explore the major pillars of cloud native design including scalability, cost optimization, security, and ways to achieve operational excellence. In the concluding chapters, you will also learn about various public cloud architectures ranging from AWS and Azure to the Google Cloud Platform. By the end of this book, you will have learned the techniques to adopt cloud native architectures that meet your business requirements. You will also understand the future trends and expectations of cloud providers. What you will learn Learn the difference between cloud native and traditional architecture Explore the aspects of migration, when and why to use it Identify the elements to consider when selecting a technology for your architecture Automate security controls and configuration management Use infrastructure as code and CI/CD pipelines to run environments in a sustainable manner Understand the management and monitoring capabilities for AWS cloud native application architectures Who this book is for Cloud Native Architectures is for software architects who are keen on designing resilient, scalable, and highly available applications that are native to the cloud.

[gRPC: Up and Running](#)

Build robust and reliable Java applications that works on modern infrastructure, such as containers and cloud, using the new features in Quarkus 1.0 Key Features Build apps with faster boot time and low RSS memory using the latest Quarkus 1.0 features Seamlessly integrate imperative and reactive programming models to build modern Java applications Discover effective solutions for running Java on serverless apps, microservices, containers, FaaS, and the cloud Book Description Quarkus is a new Kubernetes-native framework that allows Java developers to combine the power of containers, microservices, and cloud-native to build reliable applications. The book is a development guide that will teach you how to build Java-native applications using Quarkus and GraalVM. We start by learning about the basic concepts of a cloud-native application and its advantages over standard enterprise applications. Then we will quickly move on to application development, by installing the tooling required to build our first application on Quarkus. Next, we'll learn how to create a container-native image of our application and execute it in a Platform-as-a-Service environment such as Minishift. Later, we will build a complete real-world application that will use REST and the Contexts and Dependency injection stack with a web frontend. We will also learn how to add database persistence to our application using PostgreSQL. We will learn how to work with various APIs available to Quarkus such as Camel, Eclipse MicroProfile, and Spring DI. Towards the end, we will learn advanced development techniques such as securing applications, application configuration, and working with non-blocking programming models using Vert.x. By the end of this book, you will be proficient with all the components of Quarkus and develop blazing fast applications leveraging modern technology infrastructure. What you will learn Build a native application

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using Quarkus and GraalVM Secure your applications using Elytron and the MicroProfile JWT extension Manage data persistence with Quarkus using PostgreSQL Use a non-blocking programming model with Quarkus Learn how to get Camel and Infinispan working in native mode Deploy an application in a Kubernetes-native environment using Minishift Discover Reactive Programming with Vert.x Who this book is for The book is for Java developers and software architects who are interested in learning a promising microservice architecture for building reliable and robust applications. Knowledge of Java, Spring Framework, and REST APIs is assumed.

[Cloud Native Go](#)

Python is an object-oriented, scripting language that is used in wide range of categories. In software engineering, a design pattern is a recommended solution to a software design problem. Although not new, design patterns remain one of the hottest topics in software engineering and they come as a ready reference for software developers to

[Cloud-Native Applications in Java](#)

Today, companies and their developers need to respond to their market at breakneck speeds. Organizations that aren't built on highly-available, rapidly-evolving software are going the way of the dinosaurs. Cloud Native Go brings together all the knowledge developers need to build huge-scale cloud applications that meet the insatiable demands of today's customers and markets. Kevin Hoffman starts with a primer on Go, a programming language that's rapidly gaining traction due to its exceptional suitability for cloud development. Next, he describes the modern cloud-native application in detail, illuminating the 12 Factors associated with successful cloud-native development. Hoffman then guides you through building the skills you need to create microservices in Go, helping you master key techniques such as TDD in Go. Once you're comfortable building microservices, Hoffman shows how to add front-end web components using AngularJS and server-side templates. He walks through Go-based, cloud-native techniques for routing, RESTful service creation, JSON serialization, securing RESTful services, OAuth2 authentication, and more. You'll find practical techniques for working with web sockets, developing responsive/mobile-friendly UIs, making the most of concurrency, and integrating database access. At each appropriate stopping point, Hoffman shows you how to push your work in progress to cloud like Cloud Foundry/Pivotal Web Services, watch it run there, and assess its ability to dynamically scale, and to support failover, fault tolerance, and monitoring. With cloud-native development rapidly accelerating in importance, these are skills you need now - and no other book brings them together like this. By the time you're finished, you'll be ready to build cloud-native apps that dynamically scale to handle virtually any volume of data, traffic, or users.

[Building User Interface Using React And Flux](#)

[Deploying to OpenShift](#)

The way developers design, build, and run software has changed significantly with the evolution of microservices and containers. These modern architectures use new primitives that require a different set of practices than most developers, tech leads, and architects are accustomed to. With this focused guide, Bilgin Ibryam and Roland Huß from Red Hat provide common reusable elements, patterns, principles, and practices for designing and implementing cloud-native applications on Kubernetes. Each pattern includes a description of the problem and a proposed solution with Kubernetes specifics. Many patterns are also backed by concrete code examples. This book is ideal for developers already familiar with basic Kubernetes concepts who want to learn common cloud native patterns. You'll learn about the following pattern categories: Foundational patterns cover the core principles and practices for building container-based cloud-native applications. Behavioral patterns explore finer-grained concepts for managing various types of container and platform interactions. Structural patterns help you organize containers within a pod, the atom of the Kubernetes platform. Configuration patterns provide insight into how application configurations can be handled in Kubernetes. Advanced patterns covers more advanced topics such as extending the platform with operators.

[Kubernetes Cookbook](#)

Discover practical techniques to build cloud-native apps that are scalable, reliable, and always available. Key Features Build well-designed and secure microservices. Enrich your microservices with continuous integration and monitoring. Containerize your application with Docker Deploy your application to AWS. Learn how to utilize the powerful AWS services from within your application Book Description Awarded as one of the best books of all time by BookAuthority, Cloud Native Programming with Golang will take you on a journey into the world of microservices and cloud computing with the help of Go. Cloud computing and microservices are two very important concepts in modern software architecture. They represent key skills that ambitious software engineers need to acquire in order to design and build software applications capable of performing and scaling. Go is a modern cross-platform programming language that is very powerful yet simple; it is an excellent choice for microservices and cloud applications. Go is gaining more and more popularity, and becoming a very attractive skill. This book starts by covering the software architectural patterns of cloud applications, as well as practical concepts regarding how to scale, distribute, and deploy those applications. You will also learn how to build a JavaScript-based front-end for your application, using TypeScript and React. From there, we dive into commercial cloud offerings by covering AWS. Finally, we conclude our book by providing some overviews of other concepts and technologies that you can explore, to move from where the book leaves off. What you will learn Understand modern software applications architectures Build secure microservices that can effectively communicate with other services Get to know about event-driven architectures by diving into message queues such as Kafka, Rabbitmq, and AWS SQS. Understand key modern database technologies such as MongoDB, and Amazon's DynamoDB Leverage the power of containers Explore Amazon cloud services fundamentals Know how to utilize the power of the Go language to access key services in the Amazon cloud such as S3, SQS, DynamoDB and more. Build front-end applications using ReactJS with Go Implement CD for modern applications Who this book is for This book is for developers who want to begin building secure, resilient, robust, and scalable Go applications that are cloud native. Some knowledge of the Go programming language should be sufficient. To build the front-end application, you will also need some knowledge of JavaScript programming.

[Camel Design Patterns](#)

Harness the power of Quarkus, the supersonic subatomic cloud-native Java platform from Red Hat. This book covers everything you need to know to get started with the platform, which has been engineered from the ground up for superior performance and cloud-native deployment. You'll start with an overview of the Quarkus framework and its features. Next, you'll dive into building your first microservice using Quarkus, including the use of JAX-RS, Swagger, Microprofile, REST, reactive programming, and more. You'll see how to seamlessly add Quarkus to existing Spring framework projects. The book continues with a dive into the dependency injection pattern and how Quarkus supports it, working with annotations and facilities from both Jakarta EE CDI and the Spring framework. You'll also learn about dockerization and serverless technologies to deploy your microservice. Next you'll cover how data access works in Quarkus with Hibernate, JPA, Spring Boot, MongoDB, and more. This will also give you an eye for efficiency with reactive SQL, microservices, and many more reactive components. You'll also see tips and tricks not available in the official documentation for Quarkus. Lastly, you'll test and secure Quarkus-based code and use different deployment scenarios to package and deploy your Quarkus-based microservice for the cloud, using Amazon Web Services as a focus. After reading and using Beginning Quarkus Framework, you'll have the essentials to build and deploy cloud-native microservices and full-fledged applications. Author Tayo Koleoso goes to great lengths to ensure this book has up to date material including brand new and some unreleased features! What You Will Learn Build and deploy cloud-native Java applications with Quarkus Create Java-based microservices Integrate existing technologies such as the Spring framework and vanilla Java EE into the Quarkus framework Work with the Quarkus

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data layer on persistence with SQL, reactive SQL, and NoSQL Test code in Quarkus with the latest versions of JUnit and Testcontainers Secure your microservices with JWT and other technologies Package your microservices with Docker containers and GraalVM native image tooling Tips and techniques you won't find in the official Quarkus documentation Who This Book Is For Intermediate Java developers familiar with microservices, the cloud in general, and REST web services, but interested in modern approaches.

[Cloud Native DevOps with Kubernetes](#)

In the past few years, going cloud native has been a big advantage for many companies. But it's a tough technique to get right, especially for enterprises with critical legacy systems. This practical hands-on guide examines effective architecture, design, and cultural patterns to help you transform your organization into a cloud native enterprise—whether you're moving from older architectures or creating new systems from scratch. By following Wealth Grid, a fictional company, you'll understand the challenges, dilemmas, and considerations that accompany a move to the cloud. Technical managers and architects will learn best practices for taking on a successful company-wide transformation. Cloud migration consultants Pini Reznik, Jamie Dobson, and Michelle Gienow draw patterns from the growing community of expert practitioners and enterprises that have successfully built cloud native systems. You'll learn what works and what doesn't when adopting cloud native—including how this transition affects not just your technology but also your organizational structure and processes. You'll learn: What cloud native means and why enterprises are so interested in it Common barriers and pitfalls that have affected other companies (and how to avoid them) Context-specific patterns for a successful cloud native transformation How to implement a safe, evolutionary cloud native approach How companies addressed root causes and misunderstandings that hindered their progress Case studies from real-world companies that have succeeded with cloud native transformations

[Cloud Native Transformation](#)

Get a comprehensive understanding of gRPC fundamentals through real-world examples. With this practical guide, you'll learn how this high-performance interprocess communication protocol is capable of connecting polyglot services in microservices architecture, while providing a rich framework for defining service contracts and data types. Complete with hands-on examples written in Go, Java, Node, and Python, this book also covers the essential techniques and best practices to use gRPC in production systems. Authors Kasun Indrasiri and Danesh Kuruppu discuss the importance of gRPC in the context of microservices development.

[Cloud Native](#)

Kubernetes is the operating system of the cloud native world, providing a reliable and scalable platform for running containerized workloads. In this friendly, pragmatic book, cloud experts John Arundel and Justin Domingus show you what Kubernetes can do—and what you can do with it. You'll learn all about the Kubernetes ecosystem, and use battle-tested solutions to everyday problems. You'll build, step by step, an example cloud native application and its supporting infrastructure, along with a development environment and continuous deployment pipeline that you can use for your own applications. Understand containers and Kubernetes from first principles; no experience necessary Run your own clusters or choose a managed Kubernetes service from Amazon, Google, and others Use Kubernetes to manage resource usage and the container lifecycle Optimize clusters for cost, performance, resilience, capacity, and scalability Learn the best tools for developing, testing, and deploying your applications Apply the latest industry practices for security, observability, and monitoring Adopt DevOps principles to help make your development teams lean, fast, and effective

[Hands-On Cloud-Native Applications with Java and Quarkus](#)

Get a comprehensive understanding of gRPC fundamentals through real-world examples. With this practical guide, you'll learn how this high-performance interprocess communication protocol is capable of connecting polyglot services in microservices architecture, while providing a rich framework for defining service contracts and data types. Complete with hands-on examples written in Go, Java, Node, and Python, this book also covers the essential techniques and best practices to use gRPC in production systems. Authors Kasun Indrasiri and Danesh Kuruppu discuss the importance of gRPC in the context of microservices development.

[Hands-On Serverless Computing with Google Cloud](#)

[Mastering Python Design Patterns](#)

How to build useful, real-world applications in the Python programming language Key Features Deliver scalable and high-performing applications in Python. Delve into the great ecosystem of Python frameworks and libraries through projects that you will build with this book. This comprehensive guide will help you demonstrate the power of Python by building practical projects. Book Description Python is a very powerful, high-level, object-oriented programming language. It's known for its simplicity and huge community support. Python Programming Blueprints will help you build useful, real-world applications using Python. In this book, we will cover some of the most common tasks that Python developers face on a daily basis, including performance optimization and making web applications more secure. We will familiarize ourselves with the associated software stack and master asynchronous features in Python. We will build a weather application using command-line parsing. We will then move on to create a Spotify remote control where we'll use OAuth and the Spotify Web API. The next project will cover reactive extensions by teaching you how to cast votes on Twitter the Python way. We will also focus on web development by using the famous Django framework to create an online game store. We will then create a web-based messenger using the new Nameko microservice framework. We will cover topics like authenticating users and, storing messages in Redis. By the end of the book, you will have gained hands-on experience in coding with Python. What you will learn Learn object-oriented and functional programming concepts while developing projects The dos and don'ts of storing passwords in a database Develop a fully functional website using the popular Django framework Use the Beautiful Soup library to perform web scrapping Get started with cloud computing by building microservice and serverless applications in AWS Develop scalable and cohesive microservices using the Nameko framework Create service dependencies for Redis and PostgreSQL Who this book is for This book is for software developers who are familiar with Python and want to gain hands-on experience with web and software development projects. A basic knowledge of Python programming is required.

[Getting Started with Cloud-native Python](#)

A practical approach to conquering the complexities of Microservices using the Python tooling ecosystem About This Book A very useful guide for Python developers who are shifting to the new microservices-based development A concise, up-to-date guide to building efficient and lightweight microservices in Python using Flask, Tox, and other tools Learn to use Docker containers, CoreOS, and Amazon Web Services to deploy your services Who This Book Is For This book is for developers who have basic knowledge of Python, the command line, and HTTP-based application principles, and those who want to learn how to build, test, scale, and manage Python 3 microservices. No prior experience of writing microservices in Python is assumed. What You Will Learn Explore what microservices are and how to design them Use Python 3, Flask, Tox, and other tools to build your services using best practices Learn how to use a TDD approach Discover

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how to document your microservices Configure and package your code in the best way Interact with other services Secure, monitor, and scale your services Deploy your services in Docker containers, CoreOS, and Amazon Web Services In Detail We often deploy our web applications into the cloud, and our code needs to interact with many third-party services. An efficient way to build applications to do this is through microservices architecture. But, in practice, it's hard to get this right due to the complexity of all the pieces interacting with each other. This book will teach you how to overcome these issues and craft applications that are built as small standard units, using all the proven best practices and avoiding the usual traps. It's a practical book: you'll build everything using Python 3 and its amazing tooling ecosystem. You will understand the principles of TDD and apply them. You will use Flask, Tox, and other tools to build your services using best practices. You will learn how to secure connections between services, and how to script Nginx using Lua to build web application firewall features such as rate limiting. You will also familiarize yourself with Docker's role in microservices, and use Docker containers, CoreOS, and Amazon Web Services to deploy your services. This book will take you on a journey, ending with the creation of a complete Python application based on microservices. By the end of the book, you will be well versed with the fundamentals of building, designing, testing, and deploying your Python microservices. Style and approach This book is a linear, easy-to-follow guide on how to best design, write, test, and deploy your microservices. It includes real-world examples that will help Python developers create their own Python microservice using the most efficient methods.

[Container Security](#)

To facilitate scalability and resilience, many organizations now run applications in cloud native environments using containers and orchestration. But how do you know if the deployment is secure? This practical book examines key underlying technologies to help developers, operators, and security professionals assess security risks and determine appropriate solutions. Author Liz Rice, Chief Open Source Officer at Isovalent, looks at how the building blocks commonly used in container-based systems are constructed in Linux. You'll understand what's happening when you deploy containers and learn how to assess potential security risks that could affect your deployments. If you run container applications with kubectl or docker and use Linux command-line tools such as ps and grep, you're ready to get started. Explore attack vectors that affect container deployments Dive into the Linux constructs that underpin containers Examine measures for hardening containers Understand how misconfigurations can compromise container isolation Learn best practices for building container images Identify container images that have known software vulnerabilities Leverage secure connections between containers Use security tooling to prevent attacks on your deployment

[Architecting Cloud Native Applications](#)

Cloud native infrastructure is more than servers, network, and storage in the cloud—it is as much about operational hygiene as it is about elasticity and scalability. In this book, you'll learn practices, patterns, and requirements for creating infrastructure that meets your needs, capable of managing the full life cycle of cloud native applications. Justin Garrison and Kris Nova reveal hard-earned lessons on architecting infrastructure from companies such as Google, Amazon, and Netflix. They draw inspiration from projects adopted by the Cloud Native Computing Foundation (CNCF), and provide examples of patterns seen in existing tools such as Kubernetes. With this book, you will: Understand why cloud native infrastructure is necessary to effectively run cloud native applications Use guidelines to decide when—and if—your business should adopt cloud native practices Learn patterns for deploying and managing infrastructure and applications Design tests to prove that your infrastructure works as intended, even in a variety of edge cases Learn how to secure infrastructure with policy as code

[Google Cloud Platform for Developers](#)

Build cloud native applications in Python About This Book* This is the only reliable resource that showcases the tools and techniques you need build robust and resilient cloud native applications in Python* Learn how to architect your application on both, the AWS and Azure clouds for high availability* Assess, monitor, and troubleshoot your applications in the cloud Who This Book Is For This book is ideal for developers with a basic knowledge of Python who want to learn to build, test, and scale their Python-based applications. No prior experience of writing microservices in Python is required. What You Will Learn* Get to know "the way of the cloud", including why developing good cloud software is fundamentally about mindset and discipline* Know what microservices are and how to design them* Create reactive applications in the cloud with third-party messaging providers* Build massive-scale, user-friendly GUIs with React and Flux* Secure cloud-based web applications: the do's, don'ts, and options* Plan cloud apps that support continuous delivery and deployment In Detail Businesses today are evolving so rapidly that having their own infrastructure to support their expansion is not feasible. As a result, they have been resorting to the elasticity of the cloud to provide a platform to build and deploy their highly scalable applications. This book will be the one stop for you to learn all about building cloud-native architectures in Python. It will begin by introducing you to cloud-native architecture and will help break it down for you. Then you'll learn how to build microservices in Python using REST APIs in an event driven approach and you will build the web layer. Next, you'll learn about interacting data services and building Web views with React, after which we will take a detailed look at application security and performance. Then, you'll also learn how to Dockerize your services. And finally, you'll learn how to deploy the application on the AWS and Azure platforms. We will end the book by discussing some concepts and techniques around troubleshooting problems that might occur with your applications after you've deployed them. This book will teach you how to craft applications that are built as small standard units, using all the proven best practices and avoiding the usual traps. It's a practical book: we're going to build everything using Python 3 and its amazing tooling ecosystem. The book will take you on a journey, the destination of which, is the creation of a complete Python application based on microservices over the cloud platform Style and approach Filled with examples, this book takes a step-by-step approach to teach you each and every configuration you need to make your application highly available and fault tolerant.

[Grpc: Up and Running](#)

Summary Cloud Native Patterns is your guide to developing strong applications that thrive in the dynamic, distributed, virtual world of the cloud. This book presents a mental model for cloud-native applications, along with the patterns, practices, and tooling that set them apart. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Cloud platforms promise the holy grail: near-zero downtime, infinite scalability, short feedback cycles, fault-tolerance, and cost control. But how do you get there? By applying cloudnative designs, developers can build resilient, easily adaptable, web-scale distributed applications that handle massive user traffic and data loads. Learn these fundamental patterns and practices, and you'll be ready to thrive in the dynamic, distributed, virtual world of the cloud. About the Book With 25 years of experience under her belt, Cornelia Davis teaches you the practices and patterns that set cloud-native applications apart. With realistic examples and expert advice for working with apps, data, services, routing, and more, she shows you how to design and build software that functions beautifully on modern cloud platforms. As you read, you will start to appreciate that cloud-native computing is more about the how and why rather than the where. What's inside The lifecycle of cloud-native apps Cloud-scale configuration management Zero downtime upgrades, versioned services, and parallel deploys Service discovery and dynamic routing Managing interactions between services, including retries and circuit breakers About the Reader Requires basic software design skills and an ability to read Java or a similar language. About the Author Cornelia Davis is Vice President of Technology at Pivotal Software. A teacher at heart, she's spent the last 25 years making good software and great software developers. Table of Contents PART 1 - THE CLOUD-NATIVE CONTEXT You keep using that word: Defining "cloud-native" Running cloud-native applications in production The platform for cloud-native software PART 2 - CLOUD-NATIVE PATTERNS Event-driven microservices: It's not just request/response App redundancy: Scale-out and statelessness Application configuration: Not just environment variables The application lifecycle: Accounting for constant change Accessing apps: Services, routing, and service discovery Interaction redundancy: Retries and other control loops Fronting services: Circuit breakers and API gateways Troubleshooting: Finding the needle in the haystack Cloud-native data: Breaking the data monolith

[Cloud Native Data Center Networking](#)

Download Free Cloud Native Python Build And Deploy Resilient Applications On The Cloud Using Microservices Aws Azure And More

Effectively deploy fully managed workloads using Google Cloud's serverless services Key Features Use real-world use cases to understand the core functionalities of Functions as a Service Explore the potential of Cloud Run, Knative, Cloud Build, Google Kubernetes Engine, and Cloud Storage Get to grips with architectural decisions, seamless deployments, containerization, and serverless solutions Book Description Google Cloud's serverless platform allows organizations to scale fully managed solutions without worrying about the underlying infrastructure. With this book, you will learn how to design, develop, and deploy full stack serverless apps on Google Cloud. The book starts with a quick overview of the Google Cloud console, its features, user interface (UI), and capabilities. After getting to grips with the Google Cloud interface and its features, you will explore the core aspects of serverless products such as Cloud Run, Cloud Functions and App Engine. You will also learn essential features such as version control, containerization, and identity and access management with the help of real-world use cases. Later, you will understand how to incorporate continuous integration and continuous deployment (CI/CD) techniques for serverless applications. Toward the concluding chapters, you will get to grips with how key technologies such as Knative enable Cloud Run to be hosted on multiple platforms including Kubernetes and VMware. By the end of this book, you will have become proficient in confidently developing, managing, and deploying containerized applications on Google Cloud. What you will learn Explore the various options for deploying serverless workloads on Google Cloud Determine the appropriate serverless product for your application use case Integrate multiple lightweight functions to build scalable and resilient services Increase productivity through build process automation Understand how to secure serverless workloads using service accounts Build a scalable architecture with Google Cloud Functions and Cloud Run Who this book is for If you are a cloud administrator, architect, or developer who wants to build scalable systems and deploy serverless workloads on Google Cloud, then this book is for you. To get the most out of this book, a basic understanding of the serverless ecosystem and cloud computing will be beneficial.

[SAP Cloud Platform](#)

Serverless computing is radically changing the way we build and deploy applications. With cloud providers running servers and managing machine resources, companies now can focus solely on the application's business logic and functionality. This hands-on book shows experienced programmers how to build and deploy scalable machine learning and deep learning models using serverless architectures with Microsoft Azure. You'll learn step-by-step how to code machine learning into your projects using Python and pre-trained models that include tools such as image recognition, speech recognition, and classification. You'll also examine issues around deployment and continuous delivery including scaling, security, and monitoring. This book is divided into four parts: Cloud-based development: learn the basics of serverless computing with machine learning, functions as a service (FaaS), and the use of APIs Adding intelligence: create serverless applications using Azure Functions; learn how to use pre-built machine-learning and deep-learning models Deployment and continuous delivery: get up to speed with Azure Kubernetes Service, as well as Azure Security Center, and Azure Monitoring Application examples: deliver data at the edge, build conversational interfaces, and use convolutional neural networks for image classification

[Mastering Distributed Tracing](#)

Build cloud native applications in Python About This Book This is the only reliable resource that showcases the tools and techniques you need build robust and resilient cloud native applications in Python Learn how to architect your application on both, the AWS and Azure clouds for high availability Assess, monitor, and troubleshoot your applications in the cloud Who This Book Is For This book is ideal for developers with a basic knowledge of Python who want to learn to build, test, and scale their Python-based applications. No prior experience of writing microservices in Python is required. What You Will Learn Get to know "the way of the cloud", including why developing good cloud software is fundamentally about mindset and discipline Know what microservices are and how to design them Create reactive applications in the cloud with third-party messaging providers Build massive-scale, user-friendly GUIs with React and Flux Secure cloud-based web applications: the do's, don'ts, and options Plan cloud apps that support continuous delivery and deployment In Detail Businesses today are evolving so rapidly that having their own infrastructure to support their expansion is not feasible. As a result, they have been resorting to the elasticity of the cloud to provide a platform to build and deploy their highly scalable applications. This book will be the one stop for you to learn all about building cloud-native architectures in Python. It will begin by introducing you to cloud-native architecture and will help break it down for you. Then you'll learn how to build microservices in Python using REST APIs in an event driven approach and you will build the web layer. Next, you'll learn about Interacting data services and building Web views with React, after which we will take a detailed look at application security and performance. Then, you'll also learn how to Dockerize your services. And finally, you'll learn how to deploy the application on the AWS and Azure platforms. We will end the book by discussing some concepts and techniques around troubleshooting problems that might occur with your applications after you've deployed them. This book will teach you how to craft applications that are built as small standard units, using all the proven best practices and avoiding the usual traps. It's a practical book: we're going to build everything using Python 3 and its amazing tooling ecosystem. The book will take you on a journey, the destination of which, is the creation of a complete Python application based on microservices over the cloud platform Style and approach Filled with examples, this book takes a step-by-step approach to teach you each and every configuration you need to make your application highly available and fault tolerant.

[Kubernetes Patterns](#)

A practical guide for developing end-to-end serverless microservices in Python for developers, DevOps, and architects. Key Features Create a secure, cost-effective, and scalable serverless data API Use identity management and authentication for a user-specific and secure web application Go beyond traditional web hosting to explore the full range of cloud hosting options Book Description Over the last few years, there has been a massive shift from monolithic architecture to microservices, thanks to their small and independent deployments that allow increased flexibility and agile delivery. Traditionally, virtual machines and containers were the principal mediums for deploying microservices, but they involved a lot of operational effort, configuration, and maintenance. More recently, serverless computing has gained popularity due to its built-in autoscaling abilities, reduced operational costs, and increased productivity. Building Serverless Microservices in Python begins by introducing you to serverless microservice structures. You will then learn how to create your first serverless data API and test your microservice. Moving on, you'll delve into data management and work with serverless patterns. Finally, the book introduces you to the importance of securing microservices. By the end of the book, you will have gained the skills you need to combine microservices with serverless computing, making their deployment much easier thanks to the cloud provider managing the servers and capacity planning. What you will learn Discover what microservices offer above and beyond other architectures Create a serverless application with AWS Gain secure access to data and resources Run tests on your configuration and code Create a highly available serverless microservice data API Build, deploy, and run your serverless configuration and code Who this book is for If you are a developer with basic knowledge of Python and want to learn how to build, test, deploy, and secure microservices, then this book is for you. No prior knowledge of building microservices is required.

[gRPC: Up and Running](#)

Much has changed in technology over the past decade. Data is hot, the cloud is ubiquitous, and many organizations need some form of automation. Throughout these transformations, Python has become one of the most popular languages in the world. This practical resource shows you how to use Python for everyday Linux systems administration tasks with today's most useful DevOps tools, including Docker, Kubernetes, and Terraform. Learning how to interact and automate with Linux is essential for millions of professionals. Python makes it much easier. With this book, you'll learn how to develop software and solve problems using containers, as well as how to monitor, instrument, load-test, and operationalize your software. Looking for effective ways to "get stuff done" in Python? This is your guide. Python foundations, including a brief introduction to the language How to automate text, write command-line tools, and automate the filesystem Linux utilities, package management, build systems, monitoring and instrumentation, and automated testing Cloud computing, infrastructure as code, Kubernetes, and serverless Machine learning operations and data engineering from a DevOps perspective Building, deploying, and operationalizing a machine learning project

Download Free Cloud Native Python Build And Deploy Resilient Applications On The Cloud Using Microservices Aws Azure And More

[Python for Continuous Delivery and Application Security](#)

Get an in-depth tour of OpenShift, the container-based software deployment and management platform from Red Hat that provides a secure multi-tenant environment for the enterprise. This practical guide describes in detail how OpenShift, building on Kubernetes, enables you to automate the way you create, ship, and run applications in a containerized environment. Author Graham Dumpleton provides the knowledge you need to make the best use of the OpenShift container platform to deploy not only your cloud-native applications, but also more traditional stateful applications. Developers and administrators will learn how to run, access, and manage containers in OpenShift, including how to orchestrate them at scale. Build application container images from source and deploy them Implement and extend application image builders Use incremental and chained builds to accelerate build times Automate builds by using a webhook to link OpenShift to a Git repository Add configuration and secrets to the container as project resources Make an application visible outside the OpenShift cluster Manage persistent storage inside an OpenShift container Monitor application health and manage the application lifecycle This book is a perfect follow-up to OpenShift for Developers: A Guide for Impatient Beginners (O'Reilly).

[Beginning Quarkus Framework](#)

Understand how to apply distributed tracing to microservices-based architectures Key Features A thorough conceptual introduction to distributed tracing An exploration of the most important open standards in the space A how-to guide for code instrumentation and operating a tracing infrastructure Book Description Mastering Distributed Tracing will equip you to operate and enhance your own tracing infrastructure. Through practical exercises and code examples, you will learn how end-to-end tracing can be used as a powerful application performance management and comprehension tool. The rise of Internet-scale companies, like Google and Amazon, ushered in a new era of distributed systems operating on thousands of nodes across multiple data centers. Microservices increased that complexity, often exponentially. It is harder to debug these systems, track down failures, detect bottlenecks, or even simply understand what is going on. Distributed tracing focuses on solving these problems for complex distributed systems. Today, tracing standards have developed and we have much faster systems, making instrumentation less intrusive and data more valuable. Yuri Shkuro, the creator of Jaeger, a popular open-source distributed tracing system, delivers end-to-end coverage of the field in Mastering Distributed Tracing. Review the history and theoretical foundations of tracing; solve the data gathering problem through code instrumentation, with open standards like OpenTracing, W3C Trace Context, and OpenCensus; and discuss the benefits and applications of a distributed tracing infrastructure for understanding, and profiling, complex systems. What you will learn How to get started with using a distributed tracing system How to get the most value out of end-to-end tracing Learn about open standards in the space Learn about code instrumentation and operating a tracing infrastructure Learn where distributed tracing fits into microservices as a core function Who this book is for Any developer interested in testing large systems will find this book very revealing and in places, surprising. Every microservice architect and developer should have an insight into distributed tracing, and the book will help them on their way. System administrators with some development skills will also benefit. No particular programming language skills are required, although an ability to read Java, while non-essential, will help with the core chapters.

[Hands-On Cloud-Native Microservices with Jakarta EE](#)

Discover how cloud-native microservice architecture helps you to build dynamically scalable applications by using the most widely used and adopted runtime environments Key Features Build robust cloud-native applications using a variety of tools Understand how to configure both Amazon Web Services (AWS) and Docker clouds for high availability Explore common design patterns used in building and deploying microservices architecture. Book Description Businesses today are evolving rapidly, and developers now face the challenge of building applications that are resilient, flexible, and native to the cloud. To achieve this, you'll need to be aware of the environment, tools, and resources that you're coding against. The book will begin by introducing you to cloud-native architecture and simplifying the major concepts. You'll learn to build microservices in Jakarta EE using MicroProfile with Thorntail and Narayana LRA. You'll then delve into cloud-native application x-rays, understanding the MicroProfile specification and the implementation/testing of microservices. As you progress further, you'll focus on continuous integration and continuous delivery, in addition to learning how to dockerize your services. You'll also cover concepts and techniques relating to security, monitoring, and troubleshooting problems that might occur with applications after you've written them. By the end of this book, you will be equipped with the skills you need to build highly resilient applications using cloud-native microservice architecture. What you will learn Integrate reactive principles in MicroProfile microservices architecture Explore the 12-factors-app paradigm and its implications Get the best out of Java versions 8 and 9 to implement a microservice based on Thorntail Understand what OpenShift is and why it is so important for an elastic architecture Build a Linux container image using Docker and scale the application using Kubernetes Implement various patterns such as, Circuit Breaker and bulkheads Get to grips with the DevOps methodology using continuous integration (CI) and continuous deployment (CD) Who this book is for This book is for developers with basic knowledge of Java EE and HTTP-based application principles who want to learn how to build, test and scale Java EE microservices. No prior experience of writing microservices in Java EE is required.

[Flask Web Development](#)

Apply cloud native patterns and practices to deliver responsive, resilient, elastic, and message-driven systems with confidence Key Features Discover best practices for applying cloud native patterns to your cloud applications Explore ways to effectively plan resources and technology stacks for high security and fault tolerance Gain insight into core architectural principles using real-world examples Book Description Cloud computing has proven to be the most revolutionary IT development since virtualization. Cloud native architectures give you the benefit of more flexibility over legacy systems. This Learning Path teaches you everything you need to know for designing industry-grade cloud applications and efficiently migrating your business to the cloud. It begins by exploring the basic patterns that turn your database inside out to achieve massive scalability. You'll learn how to develop cloud native architectures using microservices and serverless computing as your design principles. Then, you'll explore ways to continuously deliver production code by implementing continuous observability in production. In the concluding chapters, you'll learn about various public cloud architectures ranging from AWS and Azure to the Google Cloud Platform, and understand the future trends and expectations of cloud providers. By the end of this Learning Path, you'll have learned the techniques to adopt cloud native architectures that meet your business requirements. This Learning Path includes content from the following Packt products: Cloud Native Development Patterns and Best Practices by John Gilbert Cloud Native Architectures by Erik Farr et al. What you will learn Understand the difference between cloud native and traditional architecture Automate security controls and configuration management Minimize risk by evolving your monolithic systems into cloud native applications Explore the aspects of migration, when and why to use it Apply modern delivery and testing methods to continuously deliver production code Enable massive scaling by turning your database inside out Who this book is for This Learning Path is designed for developers who want to progress into building cloud native systems and are keen to learn the patterns involved. Software architects, who are keen on designing scalable and highly available cloud native applications, will also find this Learning Path very useful. To easily grasp these concepts, you will need basic knowledge of programming and cloud computing.

[Cloud Native Architectures](#)

Take full creative control of your web applications with Flask, the Python-based microframework. With the second edition of this hands-on book, you'll learn the framework from the ground up by developing, step-by-step, a real-world project created by author Miguel Grinberg. This refreshed edition accounts for important technology changes that have occurred in the past three years. You'll learn the framework's core functionality, as well as how to extend applications with advanced web techniques such as database migration and web service communication. The first part of each chapter provides you with reference and background for the topic in question, while the second part guides you through a hands-on implementation of the topic. If you have Python experience, this book shows you how to take advantage of the creative freedom Flask provides.

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[Cloud Native Python](#)

"Businesses today are evolving so rapidly that having their own infrastructure to support their expansion is not feasible. As a result, they have been resorting to the elasticity of the cloud to provide a platform to build and deploy their highly scalable applications. This video will be the one stop for you to learn all about building cloud-native architectures in Python. It will begin by introducing you to cloud-native architecture and will help break it down for you. Then you'll learn how to build microservices in Python using REST APIs in an event-driven approach and you will build the web layer."--Resource description page.

[Python Programming Blueprints](#)

Develop, deploy, and scale your applications with Google Cloud Platform Key Features Create and deploy your applications on Google Cloud Platform Store and manage source code and debug Cloud-hosted apps with plugins and IDEs Streamline developer workflows with tools for alerting and managing deployments Book Description Google Cloud Platform (GCP) provides autoscaling compute power and distributed in-memory cache, task queues, and datastores to write, build, and deploy Cloud-hosted applications. With Google Cloud Platform for Developers, you will be able to develop and deploy scalable applications from scratch and make them globally available in almost any language. This book will guide you in designing, deploying, and managing applications running on Google Cloud. You'll start with App Engine and move on to work with Container Engine, compute engine, and cloud functions. You'll learn how to integrate your new applications with the various data solutions on GCP, including Cloud SQL, Bigtable, and Cloud Storage. This book will teach you how to streamline your workflow with tools such as Source Repositories, Container Builder, and StackDriver. Along the way, you'll see how to deploy and debug services with IntelliJ, implement continuous delivery pipelines, and configure robust monitoring and alerting for your production systems. By the end of this book, you'll be well-versed with all the development tools of Google Cloud Platform, and you'll develop, deploy, and manage highly scalable and reliable applications. What you will learn Understand the various service offerings on GCP Deploy and run services on managed platforms such as App Engine and Container Engine Securely maintain application states with Cloud Storage, Datastore, and Bigtable Leverage StackDriver monitoring and debugging to minimize downtime and mitigate issues without impacting users Design and implement complex software solutions utilizing Google Cloud Integrate with best-in-class big data solutions such as Bigquery, Dataflow, and Pub/Sub Who this book is for Google Cloud Platform for Developers is for application developers. This book will enable you to fully leverage the power of Google Cloud Platform to build resilient and intelligent software solutions.

[Building Intelligent Cloud Applications](#)

Master Powerful Off-the-Shelf Business Solutions for AI and Machine Learning Pragmatic AI will help you solve real-world problems with contemporary machine learning, artificial intelligence, and cloud computing tools. Noah Gift demystifies all the concepts and tools you need to get results—even if you don't have a strong background in math or data science. Gift illuminates powerful off-the-shelf cloud offerings from Amazon, Google, and Microsoft, and demonstrates proven techniques using the Python data science ecosystem. His workflows and examples help you streamline and simplify every step, from deployment to production, and build exceptionally scalable solutions. As you learn how machine language (ML) solutions work, you'll gain a more intuitive understanding of what you can achieve with them and how to maximize their value. Building on these fundamentals, you'll walk step-by-step through building cloud-based AI/ML applications to address realistic issues in sports marketing, project management, product pricing, real estate, and beyond. Whether you're a business professional, decision-maker, student, or programmer, Gift's expert guidance and wide-ranging case studies will prepare you to solve data science problems in virtually any environment. Get and configure all the tools you'll need Quickly review all the Python you need to start building machine learning applications Master the AI and ML toolchain and project lifecycle Work with Python data science tools such as IPython, Pandas, Numpy, Jupyter Notebook, and Sklearn Incorporate a pragmatic feedback loop that continually improves the efficiency of your workflows and systems Develop cloud AI solutions with Google Cloud Platform, including TPU, Colaboratory, and Datalab services Define Amazon Web Services cloud AI workflows, including spot instances, code pipelines, boto, and more Work with Microsoft Azure AI APIs Walk through building six real-world AI applications, from start to finish Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

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