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# Mastering Distributed Tracing Analyzing Performan

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*Mastering Distributed Tracing  
Analyzing Performan*

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## CHAVEZ ASHTYN

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**Python for Data Analysis** Cambridge University Press  
Learn how to build, test, secure, deploy, and efficiently consume services across distributed systems. Key Features - Explore the wealth of options provided by Spring Cloud for wiring service dependencies in microservice systems. - Create microservices utilizing Spring Cloud's Netflix OSS - Architect your cloud-native data using Spring Cloud. Book Description Developing, deploying, and operating cloud applications should be as easy as local applications. This should be the governing principle behind any cloud platform, library, or tool. Spring Cloud—an open-source library—makes it easy to develop JVM applications for the cloud. In this book, you will be introduced to Spring Cloud and will master its features from the application developer's point of view. This

book begins by introducing you to microservices for Spring and the available feature set in Spring Cloud. You will learn to configure the Spring Cloud server and run the Eureka server to enable service registration and discovery. Then you will learn about techniques related to load balancing and circuit breaking and utilize all features of the Feign client. The book now delves into advanced topics where you will learn to implement distributed tracing solutions for Spring Cloud and build message-driven microservice architectures. Before running an application on Docker containers, you will master testing and securing techniques with Spring Cloud. What you will learn - Abstract Spring Cloud's feature set - Create microservices utilizing Spring Cloud's Netflix OSS - Create synchronous API microservices based on a message-driven architecture. - Explore advanced topics such as distributed tracing, security, and contract testing. - Manage and deploy applications on the production environment Who this book is for This book appeals to developers keen to take

advantage of Spring cloud, an open source library which helps developers quickly build distributed systems. Knowledge of Java and Spring Framework will be helpful, but no prior exposure to Spring Cloud is required.

### **System Engineering Analysis, Design, and Development**

Packt Publishing Ltd

Designing distributed computing systems is a complex process requiring a solid understanding of the design problems and the theoretical and practical aspects of their solutions. This comprehensive textbook covers the fundamental principles and models underlying the theory, algorithms and systems aspects of distributed computing. Broad and detailed coverage of the theory is balanced with practical systems-related issues such as mutual exclusion, deadlock detection, authentication, and failure recovery. Algorithms are carefully selected, lucidly presented, and described without complex proofs. Simple explanations and illustrations are used to elucidate the algorithms. Important emerging topics such as peer-to-peer networks and network security are also considered. With vital algorithms, numerous illustrations, examples and homework problems, this textbook is suitable for advanced undergraduate and graduate students of electrical and computer engineering and computer science. Practitioners in data networking and sensor networks will also find this a valuable resource. Additional resources are available online at [www.cambridge.org/9780521876346](http://www.cambridge.org/9780521876346).

### **Practical Site Reliability Engineering** "O'Reilly Media, Inc."

The overwhelming majority of a software system's lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus

primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google's Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You'll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE's day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use

### *Assessing Competence in Professional Performance across Disciplines and Professions* Packt Publishing Ltd

Master the robust features of R parallel programming to accelerate your data science computations About This Book Create R programs that exploit the computational capability of your cloud platforms and computers to the fullest Become an expert in writing the most efficient and highest performance parallel algorithms in R Get to grips with the concept of parallelism to accelerate your existing R programs Who This Book Is For This book is for R programmers who want to step beyond its inherent single-threaded and restricted memory limitations

and learn how to implement highly accelerated and scalable algorithms that are a necessity for the performant processing of Big Data. No previous knowledge of parallelism is required. This book also provides for the more advanced technical programmer seeking to go beyond high level parallel frameworks. What You Will Learn Create and structure efficient load-balanced parallel computation in R, using R's built-in parallel package Deploy and utilize cloud-based parallel infrastructure from R, including launching a distributed computation on Hadoop running on Amazon Web Services (AWS) Get accustomed to parallel efficiency, and apply simple techniques to benchmark, measure speed and target improvement in your own code Develop complex parallel processing algorithms with the standard Message Passing Interface (MPI) using RMPI, pbdMPI, and SPRINT packages Build and extend a parallel R package (SPRINT) with your own MPI-based routines Implement accelerated numerical functions in R utilizing the vector processing capability of your Graphics Processing Unit (GPU) with OpenCL Understand parallel programming pitfalls, such as deadlock and numerical instability, and the approaches to handle and avoid them Build a task farm master-worker, spatial grid, and hybrid parallel R programs In Detail R is one of the most popular programming languages used in data science. Applying R to big data and complex analytic tasks requires the harnessing of scalable compute resources. Mastering Parallel Programming with R presents a comprehensive and practical treatise on how to build highly scalable and efficient algorithms in R. It will teach you a variety of parallelization techniques, from simple use of R's built-in parallel package versions of `lapply()`, to high-level AWS cloud-based Hadoop and

Apache Spark frameworks. It will also teach you low level scalable parallel programming using RMPI and pbdMPI for message passing, applicable to clusters and supercomputers, and how to exploit thousand-fold simple processor GPUs through ROpenCL. By the end of the book, you will understand the factors that influence parallel efficiency, including assessing code performance and implementing load balancing; pitfalls to avoid, including deadlock and numerical instability issues; how to structure your code and data for the most appropriate type of parallelism for your problem domain; and how to extract the maximum performance from your R code running on a variety of computer systems. Style and approach This book leads you chapter by chapter from the easy to more complex forms of parallelism. The author's insights are presented through clear practical examples applied to a range of different problems, with comprehensive reference information for each of the R packages employed. The book can be read from start to finish, or by dipping in chapter by chapter, as each chapter describes a specific parallel approach and technology, so can be read as a standalone.

#### Statistical Rethinking O'Reilly Media

Praise for the first edition: "This excellent text will be useful to every system engineer (SE) regardless of the domain. It covers ALL relevant SE material and does so in a very clear, methodical fashion. The breadth and depth of the author's presentation of SE principles and practices is outstanding." -Philip Allen This textbook presents a comprehensive, step-by-step guide to System Engineering analysis, design, and development via an integrated set of concepts, principles, practices,

and methodologies. The methods presented in this text apply to any type of human system -- small, medium, and large organizational systems and system development projects delivering engineered systems or services across multiple business sectors such as medical, transportation, financial, educational, governmental, aerospace and defense, utilities, political, and charity, among others. Provides a common focal point for "bridging the gap" between and unifying System Users, System Acquirers, multi-discipline System Engineering, and Project, Functional, and Executive Management education, knowledge, and decision-making for developing systems, products, or services. Each chapter provides definitions of key terms, guiding principles, examples, author's notes, real-world examples, and exercises, which highlight and reinforce key SE&D concepts and practices. Addresses concepts employed in Model-Based Systems Engineering (MBSE), Model-Driven Design (MDD), Unified Modeling Language (UMLTM) / Systems Modeling Language (SysMLTM), and Agile/Spiral/V-Model Development such as user needs, stories, and use cases analysis; specification development; system architecture development; User-Centric System Design (UCSD); interface definition & control; system integration & test; and Verification & Validation (V&V). Highlights/introduces a new 21st Century Systems Engineering & Development (SE&D) paradigm that is easy to understand and implement. Provides practices that are critical staging points for technical decision making such as Technical Strategy Development; Life Cycle requirements; Phases, Modes, & States; SE Process; Requirements Derivation; System Architecture Development, User-Centric System Design (UCSD);

Engineering Standards, Coordinate Systems, and Conventions; et al. Thoroughly illustrated, with end-of-chapter exercises and numerous case studies and examples, Systems Engineering Analysis, Design, and Development, Second Edition is a primary textbook for multi-discipline, engineering, system analysis, and project management undergraduate/graduate level students and a valuable reference for professionals.

**Enterprise Java Microservices** Packt Publishing Ltd  
Design, create and manage robust Power BI solutions to gain meaningful business insights. Key Features Master all the dashboarding and reporting features of Microsoft Power BI. Combine data from multiple sources, create stunning visualizations and publish your reports across multiple platforms. A comprehensive guide with real-world use cases and examples demonstrating how you can get the best out of Microsoft Power BI. Book Description This book is intended for business intelligence professionals responsible for the design and development of Power BI content as well as managers, architects and administrators who oversee Power BI projects and deployments. The chapters flow from the planning of a Power BI project through the development and distribution of content to the administration of Power BI for an organization. BI developers will learn how to create sustainable and impactful Power BI datasets, reports, and dashboards. This includes connecting to data sources, shaping and enhancing source data, and developing an analytical data model. Additionally, top report and dashboard design practices are described using features such as Bookmarks and the Power KPI visual. BI managers will learn how Power BI's tools work together such as with the On-premises data gateway and how

content can be staged and securely distributed via Apps. Additionally, both the Power BI Report Server and Power BI Premium are reviewed. By the end of this book, you will be confident in creating effective charts, tables, reports or dashboards for any kind of data using the tools and techniques in Microsoft Power BI. What you will learn

- Build efficient data retrieval and transformation processes with the Power Query M Language
- Design scalable, user-friendly DirectQuery and Import Data Models
- Develop visually rich, immersive, and interactive reports and dashboards
- Maintain version control and stage deployments across development, test, and production environments
- Manage and monitor the Power BI Service and the On-premises data gateway
- Develop a fully on-premise solution with the Power BI Report Server
- Scale up a Power BI solution via Power BI Premium capacity and migration to Azure Analysis Services or SQL Server Analysis Services

Who this book is for  
Business Intelligence professionals and existing Power BI users looking to master Power BI for all their data visualization and dashboarding needs will find this book to be useful. While understanding of the basic BI concepts is required, some exposure to Microsoft Power BI will be helpful.

### **Mastering SQL Server Profiler** "O'Reilly Media, Inc."

The study of human body measurements on a comparative basis is known as anthropometrics. Its applicability to the design process is seen in the physical fit, or interface, between the human body and the various components of interior space. *Human Dimension and Interior Space* is the first major anthropometrically based reference book of design standards for use by all those involved with the physical planning and detailing

of interiors, including interior designers, architects, furniture designers, builders, industrial designers, and students of design. The use of anthropometric data, although no substitute for good design or sound professional judgment should be viewed as one of the many tools required in the design process. This comprehensive overview of anthropometrics consists of three parts. The first part deals with the theory and application of anthropometrics and includes a special section dealing with physically disabled and elderly people. It provides the designer with the fundamentals of anthropometrics and a basic understanding of how interior design standards are established. The second part contains easy-to-read, illustrated anthropometric tables, which provide the most current data available on human body size, organized by age and percentile groupings. Also included is data relative to the range of joint motion and body sizes of children. The third part contains hundreds of dimensioned drawings, illustrating in plan and section the proper anthropometrically based relationship between user and space. The types of spaces range from residential and commercial to recreational and institutional, and all dimensions include metric conversions. In the Epilogue, the authors challenge the interior design profession, the building industry, and the furniture manufacturer to seriously explore the problem of adjustability in design. They expose the fallacy of designing to accommodate the so-called average man, who, in fact, does not exist. Using government data, including studies prepared by Dr. Howard Stoudt, Dr. Albert Damon, and Dr. Ross McFarland, formerly of the Harvard School of Public Health, and Jean Roberts of the U.S. Public Health Service, Panero and Zelnik have devised a system

of interior design reference standards, easily understood through a series of charts and situation drawings. With Human Dimension and Interior Space, these standards are now accessible to all designers of interior environments.

Master Apache JMeter - From Load Testing to DevOps "O'Reilly Media, Inc."

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.

*Mastering openFrameworks: Creative Coding Demystified* "O'Reilly Media, Inc."

Instrument .NET apps using OpenTelemetry and explore logs and .NET diagnostic tools to debug, monitor, and analyze the performance of complex systems in the cloud Purchase of the print or Kindle book includes a free PDF eBook Key Features Get a clear understanding of complex systems using .NET and OpenTelemetry Adopt a systematic approach toward performance analysis and debugging Explore instrumentation techniques for common distributed patterns Book Description As distributed systems become more complex and dynamic, their observability needs to grow to aid the development of holistic

solutions for performance or usage analysis and debugging. Distributed tracing brings structure, correlation, causation, and consistency to your telemetry, thus allowing you to answer arbitrary questions about your system and creating a foundation for observability vendors to build visualizations and analytics. Modern Distributed Tracing in .NET is your comprehensive guide to observability that focuses on tracing and performance analysis using a combination of telemetry signals and diagnostic tools. You'll begin by learning how to instrument your apps automatically as well as manually in a vendor-neutral way. Next, you'll explore how to produce useful traces and metrics for typical cloud patterns and get insights into your system and investigate functional, configurational, and performance issues. The book is filled with instrumentation examples that help you grasp how to enrich auto-generated telemetry or produce your own to get the level of detail your system needs, along with controlling your costs with sampling, aggregation, and verbosity. By the end of this book, you'll be ready to adopt and leverage tracing and other observability signals and tools and tailor them to your needs as your system evolves. What you will learn Understand the core concepts of distributed tracing and observability Auto-instrument .NET applications with OpenTelemetry Manually instrument common scenarios with traces and metrics Systematically debug issues and analyze the performance Keep performance overhead and telemetry volume under control Adopt and evolve observability in your organization Who this book is for This book is for software developers, architects, and systems operators running .NET services who want to use modern observability tools and standards and take a

holistic approach to performance analysis and end-to-end debugging. Software testers and support engineers will also find this book useful. Basic knowledge of the C# programming language and .NET platform is assumed to grasp the examples of manual instrumentation, but it is not necessary. [Financial Statement Analysis](#) "O'Reilly Media, Inc." Master the art of advanced VoIP and WebRTC communication with the most dynamic application server, FreeSWITCH About This Book Forget the hassle - make FreeSWITCH work for you Discover how FreeSWITCH integrates with a range of tools and APIs From high availability to IVR development use this book to become more confident with this useful communication software Who This Book Is For SysAdmins, VoIP engineers - whoever you are, whatever you're trying to do, this book will help you get more from FreeSWITCH. What You Will Learn Get to grips with the core concepts of FreeSWITCH Learn FreeSWITCH high availability Work with SIP profiles, gateways, ITSPs, and Codecs optimization Implement effective security on your projects Master audio manipulation and recording Discover how FreeSWITCH works alongside WebRTC Build your own complex IVR and PBX applications Connect directly to PSTN/TDM Create your own FreeSWITCH module Trace SIP packets with the help of best open source tools Implement Homer Sipcapture to troubleshoot and debug all your platform traffic In Detail FreeSWITCH is one of the best tools around if you're looking for a modern method of managing communication protocols through a range of different media. From real-time browser communication with the WebRTC API to implementing VoIP (voice over internet protocol), with FreeSWITCH you're in full control of your projects. This book

shows you how to unlock its full potential – more than just a tutorial, it's packed with plenty of tips and tricks to make it work for you. Written by members of the team who actually helped build FreeSWITCH, it will guide you through some of the newest features of version 1.6 including video transcoding and conferencing. Find out how FreeSWITCH interacts with other tools and APIs, learn how to tackle common (and not so common) challenges ranging from high availability to IVR development and programming advanced PBXs. Great communication functionality begins with FreeSWITCH – find out how and get your project up and running today. Style and approach Find out how it works, then put your knowledge into practice - that's how this advanced FreeSWITCH guide has been designed to help you learn. You'll soon master FreeSWITCH and be confident using it in your projects.

*Distributed Tracing in Practice* Packt Publishing Ltd

This book gives clear and effective instructions, stuffed with practical examples, to build your own fun, stunning and highly-interactive openFrameworks applications. Each chapter is focused differently and has a new theme to it, This book targets visual artists, designers, programmers and those interested in creative coding by getting started with openFrameworks. This book will help you understand the capabilities of openFrameworks to help you create visually stunning and fully interactive applications. You should have a basic knowledge of object oriented programming, such as C++, Java, Python, ActionScript 3, etc.

**Chaos Engineering** Simon and Schuster

Acknowledgments. Basic Real-Time Concepts. Computer

Hardware. Languages Issues. The Software Life Cycle. Real-Time Specification and Design Techniques. Real-Time Kernels. Intertask Communication and Synchronization. Real-Time Memory Management. System Performance Analysis and Optimization. Queuing Models. Reliability, Testing, and Fault Tolerance. Multiprocessing Systems. Hardware/Software Integration. Real-Time Applications. Glossary. Bibliography. Index. Mastering AWS Security CRC Press

A hands-on guide to creating, monitoring, and tuning a high performance Spring web application Key Features Understand common performance pitfalls and improve your application's performance Build and deploy strategies for complex applications using the microservice architecture Understand internals of JVM - the core of all Java Runtime Environments Book Description While writing an application, performance is paramount. Performance tuning for real-world applications often involves activities geared toward detecting bottlenecks. The recent release of Spring 5.0 brings major advancements in the rich API provided by the Spring framework, which means developers need to master its tools and techniques to achieve high performance applications. Hands-On High Performance with Spring 5 begins with the Spring framework's core features, exploring the integration of different Spring projects. It proceeds to evaluate various Spring specifications to identify those adversely affecting performance. You will learn about bean wiring configurations, aspect-oriented programming, database interaction, and Hibernate to focus on the metrics that help identify performance bottlenecks. You will also look at application monitoring, performance optimization, JVM internals, and garbage collection optimization. Lastly, the



book will show you how to leverage the microservice architecture to build a high performance and resilient application. By the end of the book, you will have gained an insight into various techniques and solutions to build and troubleshoot high performance Spring-based applications. What you will learn Master programming best practices and performance improvement with bean wiring Analyze the performance of various AOP implementations Explore database interactions with Spring to optimize design and configuration Solve Hibernate performance issues and traps Leverage multithreading and concurrent programming to improve application performance Gain a solid foundation in JVM performance tuning using various tools Learn the key concepts of the microservice architecture and how to monitor them Perform Spring Boot performance tuning, monitoring, and health checks Who this book is for If you're a Spring developer who'd like to build high performance applications and have more control over your application's performance in production and development, this book is for you. Some familiarity with Java, Maven, and Eclipse is necessary.

*High Performance Python* O'Reilly Media

Get up to speed with Prometheus, the metrics-based monitoring system used by tens of thousands of organizations in production. This practical guide provides application developers, sysadmins, and DevOps practitioners with a hands-on introduction to the most important aspects of Prometheus, including dashboarding and alerting, direct code instrumentation, and metric collection from third-party systems with exporters. This open source system has gained popularity over the past few years for good reason. With its simple yet powerful data model and query language,

Prometheus does one thing, and it does it well. Author and Prometheus developer Brian Brazil guides you through Prometheus setup, the Node exporter, and the Alertmanager, then demonstrates how to use them for application and infrastructure monitoring. Know where and how much to apply instrumentation to your application code Identify metrics with labels using unique key-value pairs Get an introduction to Grafana, a popular tool for building dashboards Learn how to use the Node Exporter to monitor your infrastructure Use service discovery to provide different views of your machines and services Use Prometheus with Kubernetes and examine exporters you can use with containers Convert data from other monitoring systems into the Prometheus format

**Cassandra: The Definitive Guide** John Wiley & Sons

Create, deploy, and manage applications at scale using SRE principles Key Features Build and run highly available, scalable, and secure software Explore abstract SRE in a simplified and streamlined way Enhance the reliability of cloud environments through SRE enhancements Book Description Site reliability engineering (SRE) is being touted as the most competent paradigm in establishing and ensuring next-generation high-quality software solutions. This book starts by introducing you to the SRE paradigm and covers the need for highly reliable IT platforms and infrastructures. As you make your way through the next set of chapters, you will learn to develop microservices using Spring Boot and make use of RESTful frameworks. You will also learn about GitHub for deployment, containerization, and Docker containers. Practical Site Reliability Engineering teaches you to set up and sustain containerized cloud environments, and

also covers architectural and design patterns and reliability implementation techniques such as reactive programming, and languages such as Ballerina and Rust. In the concluding chapters, you will get well-versed with service mesh solutions such as Istio and Linkerd, and understand service resilience test practices, API gateways, and edge/fog computing. By the end of this book, you will have gained experience on working with SRE concepts and be able to deliver highly reliable apps and services. What you will learn

- Understand how to achieve your SRE goals
- Grasp Docker-enabled containerization concepts
- Leverage enterprise DevOps capabilities and Microservices architecture (MSA)
- Get to grips with the service mesh concept and frameworks such as Istio and Linkerd
- Discover best practices for performance and resiliency
- Follow software reliability prediction approaches and enable patterns
- Understand Kubernetes for container and cloud orchestration
- Explore the end-to-end software engineering process for the containerized world

Who this book is for

Practical Site Reliability Engineering helps software developers, IT professionals, DevOps engineers, performance specialists, and system engineers understand how the emerging domain of SRE comes handy in automating and accelerating the process of designing, developing, debugging, and deploying highly reliable applications and services.

*The Behavioral and Social Sciences* "O'Reilly Media, Inc."

As more companies move toward microservices and other distributed technologies, the complexity of these systems increases. You can't remove the complexity, but through Chaos Engineering you can discover vulnerabilities and prevent outages before they impact your customers. This practical guide shows

engineers how to navigate complex systems while optimizing to meet business goals. Two of the field's prominent figures, Casey Rosenthal and Nora Jones, pioneered the discipline while working together at Netflix. In this book, they expound on the what, how, and why of Chaos Engineering while facilitating a conversation from practitioners across industries. Many chapters are written by contributing authors to widen the perspective across verticals within (and beyond) the software industry. Learn how Chaos Engineering enables your organization to navigate complexity

- Explore a methodology to avoid failures within your application, network, and infrastructure
- Move from theory to practice through real-world stories from industry experts at Google, Microsoft, Slack, and LinkedIn, among others
- Establish a framework for thinking about complexity within software systems
- Design a Chaos Engineering program around game days and move toward highly targeted, automated experiments
- Learn how to design continuous collaborative chaos experiments

**Mastering Parallel Programming with R** Packt Publishing Ltd

Get complete instructions for manipulating, processing, cleaning, and crunching datasets in Python. Updated for Python 3.6, the second edition of this hands-on guide is packed with practical case studies that show you how to solve a broad set of data analysis problems effectively. You'll learn the latest versions of pandas, NumPy, IPython, and Jupyter in the process. Written by Wes McKinney, the creator of the Python pandas project, this book is a practical, modern introduction to data science tools in Python. It's ideal for analysts new to Python and for Python programmers new to data science and scientific computing. Data files and related material are available on GitHub. Use the

IPython shell and Jupyter notebook for exploratory computing  
Learn basic and advanced features in NumPy (Numerical Python)  
Get started with data analysis tools in the pandas library Use  
flexible tools to load, clean, transform, merge, and reshape data  
Create informative visualizations with matplotlib Apply the  
pandas groupby facility to slice, dice, and summarize datasets  
Analyze and manipulate regular and irregular time series data  
Learn how to solve real-world data analysis problems with  
thorough, detailed examples

Practical Malware Analysis Packt Publishing Ltd

Summary Enterprise Java Microservices is an example-rich  
tutorial that shows how to design and manage large-scale Java  
applications as a collection of microservices. Purchase of the print  
book includes a free eBook in PDF, Kindle, and ePub formats from  
Manning Publications. About the Technology Large applications  
are easier to develop and maintain when you build them from  
small, simple components. Java developers now enjoy a wide  
range of tools that support microservices application  
development, including right-sized app servers, open source  
frameworks, and well-defined patterns. Best of all, you can build  
microservices applications using your existing Java skills. About  
the Book Enterprise Java Microservices teaches you to design and  
build JVM-based microservices applications. You'll start by  
learning how microservices designs compare to traditional Java  
EE applications. Always practical, author Ken Finnigan introduces  
big-picture concepts along with the tools and techniques you'll  
need to implement them. You'll discover ecosystem components  
like Netflix Hystrix for fault tolerance and master the Just enough  
Application Server (JeAS) approach. To ensure smooth operations,

you'll also examine monitoring, security, testing, and deploying to  
the cloud. What's inside The microservices mental model Cloud-  
native development Strategies for fault tolerance and monitoring  
Securing your finished applications About the Reader This book is  
for Java developers familiar with Java EE. About the Author Ken  
Finnigan leads the Thorntail project at Red Hat, which seeks to  
make developing microservices for the cloud with Java and Java  
EE as easy as possible. Table of Contents PART 1 MICROSERVICES  
BASICS Enterprise Java microservices Developing a simple  
RESTful microservice Just enough Application Server for  
microservices Microservices testing Cloud native development  
PART 2 - IMPLEMENTING ENTERPRISE JAVA MICROSERVICES  
Consuming microservices Discovering microservices for  
consumption Strategies for fault tolerance and monitoring  
Securing a microservice Architecting a microservice hybrid Data  
streaming with Apache Kafka

**Hands-On High Performance with Spring 5** Elsevier

Performance tuning is becoming more important than it has been  
for the last 40 years. Read this book to understand your  
application's performance that runs on a modern CPU and learn  
how you can improve it. The 170+ page guide combines the  
knowledge of many optimization experts from different  
industries.

**Mastering Spring Boot 2.0** Red Gate Software

A "hands-on" guide to applied equity analysis and portfolio  
management From asset allocation to modeling the intrinsic  
value of a stock, Applied Equity Analysis and Portfolio  
Management + Online Video Course offers readers a solid  
foundation in the practice of fundamental analysis using the

same tools and techniques as professional investors. Filled with real-world illustrations and hands-on applications, Professor Weigand's learning system takes a rigorous, empirical approach to topics such as analyzing the macro-finance environment, sector rotation, financial analysis and valuation, assessing a company's competitive position, and reporting the performance of a stock portfolio. Unlike typical books on this subject—which feature chapters to read and exercises to complete—this resource allows readers to actively participate in the learning experience by completing writing exercises and manipulating interactive spreadsheets that illustrate the principles being taught. The learning system also features instructional videos that demonstrate how to use the spreadsheet models and excerpts from the author's blog, which are used to depict

additional examples of the analysis process. Along the way, it skillfully outlines an effective approach to creating and interpreting outputs typically associated with a top-down money management shop — including a macroeconomic forecasting newsletter, detailed stock research reports, and a portfolio performance attribution analysis. Covers topics including active and passive money management, fundamental analysis and portfolio attribution analysis Companion streaming videos show how to use free online data to create your own analyses of key economic indicators, individual stocks, and stock portfolios A valuable resource for universities who have applied equity analysis and portfolio management courses Practical and up-to-date, the book is an excellent resource for those with a need for practical investment expertise.