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Simon and Schuster "This book will teach you everything you need to build and deploy kubernetes native microservices in a super productive fashion: a must!" - Alain Lompo Build fast, efficient Kubernetes-based Java applications using the Quarkus framework, MicroProfile, and Java standards. Most popular Java

frameworks, like Spring, were designed long before the advent of Kubernetes and cloud-native systems. A new generation of tools, including Quarkus and MicroProfile have been cloud-native and Kubernetes-aware from the beginning. Kubernetes Native Microservices : With Quarkus and MicroProfile teaches you how to create efficient

enterprise Java applications that are easy to deploy, maintain, and expand. In Kubernetes Native Microservices : With Quarkus and MicroProfile you'll learn how to: Deploy enterprise Java applications on Kubernetes Develop applications using the Quarkus runtime framework Compile natively using GraalVM for blazing

speed Create application modern
efficient development approach to
microservices in Java much enterprise
applications easier than Java
Take it is on development
advantage of Spring or using new
MicroProfile other older tools
specification platforms. designed for
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approach. The by 100x or it quickly
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framework, the book through
developed at Kubernetes setting up an
Red Hat, is Native application
designed for Microservices using
this : With MicroProfile
deployment Quarkus and APIs,
model, making MicroProfile Kubernetes,
cloud-native introduces a and Quarkus.

Using carefully selected examples and crystal-clear explanations, it guides you step by step from design to deployment. Written by veteran Java developers John Clingan and Ken Finnigan, this book oozes with experience and insight. You'll look past the idea l-but- untested advice you find in many books on new technologies and see how K

ubernetes-native development with Quarkus and MicroProfile work in the real world. about the reader Written for intermediate Java developers comfortable with Java EE, Jakarta EE, or Spring. Assumes some prior exposure to Docker and Kubernetes. No experience with Quarkus or MicroProfile required. about the author John

Clingan is a senior principal product manager at Red Hat. At Red Hat John works on next generation platforms including Quarkus. He is a co-founder of Eclipse MicroProfile, MicroProfile committer, and MicroProfile co-lead. Ken Finnigan is a senior principal software engineer and Eclipse MicroProfile technical architect at

Red Hat. He's the co-founder of Eclipse MicroProfile and a MicroProfile committer. An illustrated guide for programmers and other curious people SAGE Summary Think Like a Data Scientist presents a step-by-step approach to data science, combining analytic, programming, and business perspectives into easy-to-digest techniques and thought processes for solving real

world data-centric problems. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Data collected from customers, scientific measurements, IoT sensors, and so on is valuable only if you understand it. Data scientists revel in the interesting and rewarding challenge of observing, exploring, analyzing, and interpreting this data. Getting

started with data science means more than mastering analytic tools and techniques, however; the real magic happens when you begin to think like a data scientist. This book will get you there. About the Book Think Like a Data Scientist teaches you a step-by-step approach to solving real-world data-centric problems. By breaking down carefully crafted examples, you'll learn to combine analytic, programming, and business perspectives into a

repeatable process for extracting real knowledge from data. As you read, you'll discover (or remember) valuable statistical techniques and explore powerful data science software. More importantly, you'll put this knowledge together using a structured process for data science. When you've finished, you'll have a strong foundation for a lifetime of data science learning and practice. What's Inside The data science process, step-by-step How to anticipate

problems Dealing with uncertainty Best practices in software and scientific thinking About the Reader Readers need beginner programming skills and knowledge of basic statistics. About the Author Brian Godsey has worked in software, academia, finance, and defense and has launched several data-centric start-ups. Table of Contents PART 1 - PREPARING AND GATHERING DATA AND KNOWLEDGE Philosophies of

data science Setting goals by asking good questions Data all around us: the virtual wilderness Data wrangling: from capture to domestication Data assessment: poking and prodding PART 2 - BUILDING A PRODUCT WITH SOFTWARE AND STATISTICS Developing a plan Statistics and modeling: concepts and foundations Software: statistics in action Supplementary software: bigger, faster, more efficient Plan

execution: putting it all together

PART 3 - FINISHING OFF THE PRODUCT AND WRAPPING UP

Delivering a product After product delivery: problems and revisions

Wrapping up: putting the project away

Objective-C Fundamentals

Edward Elgar Publishing

"Atwood's Law" is driven by the idea that all applications will ultimately wind up on the web and therefore must be written in JavaScript. WebAssembly may be your way out! With WebAssembly, you can write in

nearly any modern language and run your code in the browser through a memory-safe, sandboxed execution environment that can be embedded in a web browser and other platforms. Getting set up and moving with WebAssembly requires you to modify your web dev process; WebAssembly in Action will get you started quickly and guide you through real-world examples and detailed diagrams that help you create, run, and debug WebAssembly modules. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

Real World

Instrumentation with Python IGI

Global Class-tested and coherent, this textbook teaches classical and web information retrieval, including web search and the related areas of text classification and text clustering from basic concepts. It gives an up-to-date treatment of all aspects of the design and implementation of systems for gathering, indexing, and searching documents; methods for

evaluating systems; and an introduction to the use of machine learning methods on text collections. All the important ideas are explained using examples and figures, making it perfect for introductory courses in information retrieval for advanced undergraduates and graduate students in computer science. Based on feedback from extensive classroom experience, the book has been

carefully structured in order to make teaching more natural and effective. Slides and additional exercises (with solutions for lecturers) are also available through the book's supporting website to help course instructors prepare their lectures. With examples in Java Springer Science & Business Media All films with a predominantly or entirely African American cast or that were about

African Americans are detailed here. Each entry includes cast and credits, year of release, studio, distributor, type of film (feature, short or documentary) and other production details. In most cases, a brief synopsis of the film or contemporary reviews of it follow. In the appendices, film credits for over 1,850 actors and actresses are provided, along with a listing of film companies. Using the TI-84 Plus Routledge Introduction to Information RetrievalCambridge University Press

Deep Learning with Python Simon and Schuster
This book constitutes the joint refereed proceedings of the three workshops held in conjunction with the 6th International Conference on Web Information Systems Engineering, WISE 2005, in New York, NY, USA, in November 2005. A total of 47 papers were submitted to the three workshops, and 28 revised full papers were carefully selected for presentation. The workshop on Web Information Systems Quality (WISQ 2005) - discussing and disseminating research on the quality of WIS and Web services from a holistic point of view - included 7 papers out of 12 submissions. The workshop on Web-

based Learning (WBL 2005) accounted for 10 papers from 14 papers submitted - organized in topical sections on tools, models, and innovative applications. The workshop on Scalable Semantic Web Knowledge Base Systems (SSWS 2005) included 11 presentations selected from 21 submissions. Topics addressed are scalable repository and reasoning services, practical Semantic Web applications, query handling and optimization techniques. The Complete Guide to Large-Scale Analysis and Modeling Simon and Schuster "This book focuses on an in-depth assessment on

strategies and instructional design practices appropriate for the flipped classroom model, highlighting the benefits, shortcoming, perceptions, and academic results of the flipped classroom model"--Provided by publisher. Mastering Spark with R Springer Grokking Deep Reinforcement Learning uses engaging exercises to teach you how to build deep learning systems. This book combines annotated Python code with intuitive explanations to explore DRL techniques. You ' ll see how algorithms function and learn to

develop your own DRL into this awesome agents using evaluative feedback. Summary We all learn through trial and error. We avoid the things that cause us to experience pain and failure. We embrace and build on the things that give us reward and success. This common pattern is the foundation of deep reinforcement learning: building machine learning systems that explore and learn based on the responses of the environment. *Grokking Deep Reinforcement Learning* introduces this powerful machine learning approach, using examples, illustrations, exercises, and crystal-clear teaching. You'll love the perfectly paced teaching and the clever, engaging writing style as you dig

exploration of reinforcement learning fundamentals, effective deep learning techniques, and practical applications in this emerging field. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology We learn by interacting with our environment, and the rewards or punishments we experience guide our future behavior. Deep reinforcement learning brings that same natural process to artificial intelligence, analyzing results to uncover the most efficient ways forward. DRL agents can improve marketing campaigns, predict stock performance, and beat grand masters in Go and chess.

About the book *Grokking Deep Reinforcement Learning* uses engaging exercises to teach you how to build deep learning systems. This book combines annotated Python code with intuitive explanations to explore DRL techniques. You ' ll see how algorithms function and learn to develop your own DRL agents using evaluative feedback. What's inside An introduction to reinforcement learning DRL agents with human-like behaviors Applying DRL to complex situations About the reader For developers with basic deep learning experience. About the author Miguel Morales works on reinforcement learning at Lockheed Martin and is an

instructor for the Georgia Institute of Technology 's Reinforcement Learning and Decision Making course. Table of Contents 1 Introduction to deep reinforcement learning 2 Mathematical foundations of reinforcement learning 3 Balancing immediate and long-term goals 4 Balancing the gathering and use of information 5 Evaluating agents ' behaviors 6 Improving agents ' behaviors 7 Achieving goals more effectively and efficiently 8 Introduction to value-based deep reinforcement learning 9 More stable value-based methods 10 Sample-efficient value-based methods 11 Policy-gradient and actor-critic methods 12 Advanced actor-critic methods 13 Toward

artificial general intelligence
Unity in Action
Simon and Schuster
Health Economics combines current economic theory, recent research, and health policy problems into a comprehensive overview of the field. This thorough update of a classic and widely used text follows author Charles E. Phelps' thirteen years of service as Provost of the University of Rochester. Accessible and intuitive, early chapters use recent empirical studies to develop essential

methodological foundations. Later chapters build on these core concepts to focus on key policy areas, such as the structure and effects of Medicare reform, insurance plans, and new technologies in the health care community. This edition contains revised and updated data tables and contains information throughout the text on the latest changes that were made to the Patient Protection and Affordable Care Act (PPACA). Unity in Action, Third Edition "O'Reilly Media,

Inc." Summary Grokking Algorithms is a fully illustrated, friendly guide that teaches you how to apply common algorithms to the practical problems you face every day as a programmer. You'll start with sorting and searching and, as you build up your skills in thinking algorithmically, you'll tackle more complex concerns such as data compression and artificial intelligence. Each carefully presented example includes helpful diagrams and fully annotated

code samples in Python. Learning about algorithms doesn't have to be boring! Get a sneak peek at the fun, illustrated, and friendly examples you'll find in Grokking Algorithms on Manning Publications' YouTube channel. Continue your journey into the world of algorithms with Algorithms in Motion, a practical, hands-on video course available exclusively at Manning.com (www.manning.com/livevideo/algorithms-in-motion). Purchase of the print book includes

a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology An algorithm is nothing more than a step-by-step procedure for solving a problem. The algorithms you'll use most often as a programmer have already been discovered, tested, and proven. If you want to understand them but refuse to slog through dense multipage proofs, this is the book for you. This fully illustrated and engaging guide makes it easy to learn how to use the

most important algorithms effectively in your own programs. About the Book Grokking Algorithms is a friendly take on this core computer science topic. In it, you'll learn how to apply common algorithms to the practical programming problems you face every day. You'll start with tasks like sorting and searching. As you build up your skills, you'll tackle more complex problems like data compression and artificial intelligence. Each carefully presented

example includes helpful diagrams and fully annotated code samples in Python. By the end of this book, you will have mastered widely applicable algorithms as well as how and when to use them. What's Inside Covers search, sort, and graph algorithms Over 400 pictures with detailed walkthroughs Performance trade-offs between algorithms Python-based code samples About the Reader This easy-to-read, picture-heavy introduction is suitable for self-taught programmers,

engineers, or anyone who wants to brush up on algorithms. About the Author Aditya Bhargava is a Software Engineer with a dual background in Computer Science and Fine Arts. He blogs on programming at adit.io. Table of Contents Introduction to algorithms Selection sort Recursion Quicksort Hash tables Breadth-first search Dijkstra's algorithm Greedy algorithms Dynamic programming K-nearest neighbors WebAssembly in

Action Simon and Schuster Summary Objective-C Fundamentals is a hands-on tutorial that leads you from your first line of Objective-C code through the process of building native apps for the iPhone using the latest version of the SDK. You'll learn to avoid the most common pitfalls, while exploring the expressive Objective-C language through numerous example projects. About the Technology The iPhone is a sophisticated device, and mastering the Objective C language is the key to unlocking its awesome potential as a mobile

computing platform. Objective C's concise, rich syntax and feature set, when matched with the iPhone SDK and the powerful Xcode environment, offers a developers from any background a smooth transition into mobile app development for the iPhone. About the Book Objective-C Fundamentals guides you gradually from your first line of Objective-C code through the process of building native apps for the iPhone. Starting with chapter one, you'll dive into iPhone development by building a simple game that you can run immediately. You'll use tools like Xcode 4 and the

debugger that will help you become a more efficient programmer. By working through numerous easy-to-follow examples, you'll learn practical techniques and patterns you can use to create solid and stable apps. And you'll find out how to avoid the most common pitfalls. No iOS or mobile experience is required to benefit from this book but familiarity with programming in general is helpful. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.

What's Inside	OF FRAMEWORK	44 design patterns for
Objective-C from the	FUNCTIONALITY	building and deploying
ground up	Error and exception	microservices
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3 MAKING	quality microservices-	patterns to reliably
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	with worked examples	production-quality
	in Java Key Features	microservices-based
		applications. This

invaluable set of design patterns builds on decades of distributed system experience, adding new patterns for composing services into systems that scale and perform under real-world conditions. More than just a patterns catalog, this practical guide with worked examples offers industry-tested advice to help you design, implement, test, and deploy your microservices-based application. What You Will Learn How (and why!) to use microservices architecture Service decomposition strategies Transaction management and querying patterns Effective testing strategies Deployment patterns This Book Is Written For Written for enterprise developers familiar

with standard enterprise application architecture. Examples are in Java. About The Author Chris Richardson is a Java Champion, a JavaOne rock star, author of Manning 's POJOs in Action, and creator of the original CloudFoundry.com. Table of Contents Escaping monolithic hell Decomposition strategies Interprocess communication in a microservice architecture Managing transactions with sagas Designing business logic in a microservice architecture Developing business logic with event sourcing Implementing queries in a microservice architecture External API patterns Testing microservices: part 1 Testing microservices: part 2 Developing

production-ready services Deploying microservices Refactoring to microservices Promoting Active Learning through the Flipped Classroom Model Simon and Schuster Summary Solr in Action is a comprehensive guide to implementing scalable search using Apache Solr. This clearly written book walks you through well-documented examples ranging from basic keyword searching to scaling a system for billions of documents and queries. It will give

you a deep understanding of how to implement core Solr capabilities. About the Book Whether you're handling big (or small) data, managing documents, or building a website, it is important to be able to quickly search through your content and discover meaning in it. Apache Solr is your tool: a ready-to-deploy, Lucene-based, open source, full-text search engine. Solr can scale across many servers to enable real-time queries and data analytics across billions of documents. Solr in

Action teaches you to implement scalable search using Apache Solr. This easy-to-read guide balances conceptual discussions with practical examples to show you how to implement all of Solr's core capabilities. You'll master topics like text analysis, faceted search, hit highlighting, result grouping, query suggestions, multilingual search, advanced geospatial and data operations, and relevancy tuning. This book assumes basic knowledge of Java and standard database

technology. No prior knowledge of Solr or Lucene is required. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. What's Inside How to scale Solr for big data Rich real-world examples Solr as a NoSQL data store Advanced multilingual, data, and relevancy tricks Coverage of versions through Solr 4.7 About the Authors Trey Grainger is a director of engineering at CareerBuilder.

Timothy Potter is a senior member of the engineering team at LucidWorks. The authors work on the scalability and reliability of Solr, as well as on recommendation engine and big data analytics technologies. Table of Contents
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Performing queries and handling results
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Result grouping/field collapsing
Taking Solr to production
PART 3 TAKING SOLR TO THE NEXT LEVEL
SolrCloud
Multilingual search
Complex query operations
Mastering relevancy
Design and Implementation
Simon and Schuster
Summary
This easy-to-follow book includes terrific tutorials and plenty of exercises and examples that let you learn by doing.
It starts by giving you a hands-on orientation to the

TI-84 Plus calculator. Then, you'll start exploring key features while you tackle problems just like the ones you'll see in your math and science classes.
Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.
About this Book
With so many features and functions, the TI-84 Plus graphing calculator can be a little intimidating. But fear not if you have this book in your hand! In it you'll find terrific tutorials ranging from mastering

basic skills to advanced graphing and calculation techniques, along with countless examples and exercises that let you learn by doing. Using the TI-84 Plus, Second Edition starts by making you comfortable with the screens, buttons, and special vocabulary you'll use every time you fire up the TI-84 Plus. Then, you'll master key features and techniques while you tackle problems just like the ones you'll see in your math and science classes. You'll even get tips for using the TI-84

Plus on the SAT and the author of ACT math sections! No advanced knowledge of math or science is required. What's Inside Learn hands-on with real examples and exercises Find specific answers fast Compliant with all models of the TI-83 Plus and TI-84 Plus Full coverage of the color-screen TI-84 Plus CE and TI-84 Plus C Silver Edition Christopher Mitchell, PhD. is a research scientist studying distributed systems, the founder of the programming and calculator support site cemetech.net,

Manning's Programming the TI-83 Plus/ TI-84 Plus. Table of Contents PART 1 BASICS AND ALGEBRA ON THE TI-84 PLUS What can your calculator do? Get started with your calculator Basic graphing Variables, matrices, and lists PART 2 PRECALCULUS AND CALCULUS Expanding your graphing skills Precalculus and your calculator Calculus on the TI-83 Plus/TI-84 Plus PART 3 STATISTICS, PROBABILITY, AND FINANCE

Calculating and plotting statistics
Working with probability and distributions
Financial tools
PART 4 GOING FURTHER WITH THE TI-83 PLUS/TI-84 PLUS Turbocharging math with programming The TI-84 Plus CE and TI-84 Plus C Silver Edition Now what?
An International Monthly Review of Current Progress in Mining and Metallurgy Simon and Schuster
'An impressive collection of authoritative treatments of major current and ongoing topics in public sector human

resource management, provided by both well-established experts and up-and-coming scholars who are becoming leaders in the field. A valuable resource for courses on the topic and an important reference for scholars and those seeking to maintain expert knowledge about it.'

– Hal G. Rainey, The University of Georgia, US

This insightful book presents current thinking and research evidence on the role of human resource management policies and practices in increasing service quality, efficiency and organizational effectiveness in the

public sector. Internationally, public sector organisations face enormous challenges, including increasingly uncertain political and economic environments, more vigilant and cost-conscious governments, rapidly evolving community needs and an ageing workforce. This collection examines a range of HRM-related topics that will influence the capacity of public sector agencies to negotiate and respond to the challenges ahead. These topics include managing public sector human resources during an economic downturn,

enhancing the satisfaction and motivation of public sector employees, attracting and retaining talent, leadership development, and case studies in successful public sector organizational change. With each chapter drawing on the latest research, but also emphasizing the practical implications, this collection is suitable for practitioners, researchers and students alike. It will also be valuable for HR specialists and managers of HR units in the public sector.

With examples using C++ and Emscripten Simon and Schuster

This book aims at promoting new and innovative studies, proposing new architectures or innovative evolutions of existing ones, and illustrating experiments on current technologies in order to improve the efficiency and effectiveness of distributed and cluster systems when they deal with spatiotemporal data.

Postmodern Management Theory Cambridge University Press

Summary Groovy in Action, Second Edition is a thoroughly revised,

comprehensive guide to Groovy programming. It introduces Java developers to the dynamic features that Groovy provides, and shows how to apply Groovy to a range of tasks including building new apps, integration with existing code, and DSL development. Covers Groovy 2.4. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology In the last ten years, Groovy has become an integral part of a Java

developer's toolbox. the inside out. With coverage of Groovy
Its comfortable, relevant examples, 2.4 including
common-sense careful explanations language features,
design, seamless of Groovy's key libraries, and AST
integration with concepts and transformations
Java, and rich features, and Dynamic, static,
ecosystem that insightful coverage and extensible
includes the Grails of how to use typing
web framework, the Groovy in- Concurrency:
Gradle build production tasks, actors, data
system, and Spock including building parallelism, and
testing platform new applications, dataflow Applying
have created a large integration with Groovy: Java
Groovy existing code, and integration, XML,
community About DSL development, SQL, testing, and
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Action, Second book you'll need. language support
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language. Written programming K ö nig, Paul King,
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the Groovy No Groovy Hamlet D'Arcy,
language team, this experience is C é dric
book presents assumed. What's Champeau, Erik
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other can—from Comprehensive Skeet are intimately

involved in the creation and ongoing development of the Groovy language and its ecosystem. Table of Contents PART 1 THE GROOVY LANGUAGE Your way to Groovy Overture: Groovy basics Simple Groovy datatypes Collective Groovy datatypes Working with closures Groovy control structures Object orientation, Groovy style Dynamic programming with Groovy Compile-time metaprogramming and AST transformations

Groovy as a static language PART 2 AROUND THE GROOVY LIBRARY Working with builders Working with the GDK Database programming with Groovy Working with XML and JSON Interacting with Web Services Integrating Groovy PART 3 APPLIED GROOVY Unit testing with Groovy Concurrent Groovy with GParc Domain-specific languages The Groovy ecosystem Human Resource Management in the Public Sector SAGE “ We finally have the definitive

treatise on PyTorch! It covers the basics and abstractions in great detail. I hope this book becomes your extended reference document. ” —Soumith Chintala, co-creator of PyTorch Key Features Written by PyTorch ’ s creator and key contributors Develop deep learning models in a familiar Pythonic way Use PyTorch to build an image classifier for cancer detection Diagnose problems with your neural network and improve training with data augmentation

Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About The Book Every other day we hear about new ways to put deep learning to good use: improved medical imaging, accurate credit card fraud detection, long range weather forecasting, and more. PyTorch puts these superpowers in your hands. Instantly familiar to anyone who knows Python data tools like NumPy and Scikit-learn, PyTorch simplifies deep learning

without sacrificing advanced features. It ' s great for building quick models, and it scales smoothly from laptop to enterprise. Deep Learning with PyTorch teaches you to create deep learning and neural network systems with PyTorch. This practical book gets you to work right away building a tumor image classifier from scratch. After covering the basics, you ' ll learn best practices for the entire deep learning pipeline, tackling advanced projects as your PyTorch skills become more

sophisticated. All code samples are easy to explore in downloadable Jupyter notebooks. What You Will Learn Understanding deep learning data structures such as tensors and neural networks Best practices for the PyTorch Tensor API, loading data in Python, and visualizing results Implementing modules and loss functions Utilizing pretrained models from PyTorch Hub Methods for training networks with limited inputs Sifting through unreliable results to diagnose and fix

problems in your neural network. Improve your results with augmented data, better model architecture, and fine tuning. This Book Is Written For Python programmers with an interest in machine learning. No experience with PyTorch or other deep learning frameworks is required. About The Authors Eli Stevens has worked in Silicon Valley for the past 15 years as a software engineer, and the past 7 years as Chief Technical Officer of a startup making medical device software.

Luca Antiga is co-founder and CEO of an AI engineering company located in Bergamo, Italy, and a regular contributor to PyTorch. Thomas Viehmann is a Machine Learning and PyTorch speciality trainer and consultant based in Munich, Germany and a PyTorch core developer. Table of Contents PART 1 - CORE PYTORCH 1 Introducing deep learning and the PyTorch Library 2 Pretrained networks 3 It starts with a tensor 4 Real-world data representation

using tensors 5 The mechanics of learning 6 Using a neural network to fit the data 7 Telling birds from airplanes: Learning from images 8 Using convolutions to generalize PART 2 - LEARNING FROM IMAGES IN THE REAL WORLD: EARLY DETECTION OF LUNG CANCER 9 Using PyTorch to fight cancer 10 Combining data sources into a unified dataset 11 Training a classification model to detect suspected tumors 12 Improving training with metrics and augmentation 13

Using segmentation to find suspected nodules 14 End-to-end nodule analysis, and where to go next PART 3 - DEPLOYMENT

15 Deploying to production

Multiplatform game development in C#
Manning Publications

Learn how to develop your own applications to monitor or control instrumentation hardware. Whether you need to acquire data from a device or automate its functions, this practical book shows you how to use Python's rapid development capabilities to build interfaces that include everything from software to wiring. You get step-by-step instructions, clear examples, and hands-

on tips for interfacing a PC to a variety of devices. Use the book's hardware survey to identify the interface type for your particular device, and then follow detailed examples to develop an interface with Python and C.

Organized by interface type, data processing activities, and user interface implementations, this book is for anyone who works with instrumentation, robotics, data acquisition, or process control. Understand how to define the scope of an application and determine the algorithms necessary, and why it's important. Learn how to use industry-standard interfaces such as RS-232, RS-485, and GPIB. Create low-level extension modules in C to interface Python

with a variety of hardware and test instruments. Explore the console, curses, TkInter, and wxPython for graphical and text-based user interfaces. Use open source software tools and libraries to reduce costs and avoid implementing functionality from scratch.