

Bookmark File PDF Pipeline Studio Tutorial

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Parallel Programming with Intel Parallel Studio XE

John Wiley & Sons Optimize code for multi-core processors with Intel's Parallel Studio Parallel programming is rapidly becoming a "must-know" skill for developers. Yet, where to start? This teach-yourself tutorial is an ideal starting point for developers who already know Windows C and C++ and are eager to add parallelism to their code. With a focus on applying tools, techniques, and language extensions to implement parallelism, this essential resource teaches you how to write programs for multicore and leverage the power of multicore in your programs. Sharing hands-on case studies and real-world examples, the authors examine the challenges of each project and show you how to overcome them. Explores conversion of serial code to parallel Focuses on implementing Intel Parallel Studio Highlights the benefits of using parallel code Addresses error and performance optimization of code Includes real-world scenarios that illustrate the techniques of advanced parallel programming situations Parallel Programming with Intel Parallel Studio dispels any concerns of difficulty and gets you started creating faster code with Intel Parallel Studio.

Data Science on AWS

"O'Reilly Media, Inc." With this practical book, AI and machine learning practitioners will learn how to successfully build and deploy data science projects on Amazon Web Services. The Amazon AI and machine learning stack unifies data science, data engineering, and application development to help level up your skills. This guide shows you how to build and run pipelines in the cloud, then integrate the results into applications in minutes instead of days. Throughout the book, authors Chris Fregly and Antje Barth demonstrate how to reduce cost and improve performance. Apply the Amazon AI and ML stack to real-world use cases for natural language processing, computer vision, fraud detection, conversational devices, and more Use automated machine learning to implement a specific subset of use cases with SageMaker Autopilot Dive deep into the complete model development lifecycle for a BERT-based NLP use case including data ingestion, analysis, model training, and deployment Tie everything together into a repeatable machine learning operations pipeline Explore real-time ML, anomaly detection, and streaming analytics on data streams with Amazon Kinesis and Managed Streaming for Apache Kafka Learn security best practices for data science projects and workflows including identity and access management, authentication, authorization, and more

Microsoft DirectX 9 Programmable Graphics Pipeline

Learn how to use programmable shaders in the DirectX 9 graphics pipeline and deliver awesome 3-D graphics to your animations, games, and other multimedia applications. This book distills hundreds of hours of hands-on guidance from the developers on the Microsoft DirectX team as well as insights from leading-edge video card manufacturers into step-by-step instruction and best practices for exploiting the programmable pipeline. You'll see how to program shaders in assembly-language as well as the new high-level shader language (HLSL) and you get complete code walk throughs for all the sample programs and the DirectX 9 SDK on CD. Discover how to: Program vertex shaders to create transformations, apply vertex fog, or deform geometry Generate 2-D image effects such as output color inversion with pixel shaders Use HLSL to add a semi-transparent glow effect by combining a vertex shader and frame buffer blending Produce a metallic paint effect by combining a vertex shader, a pixel shader, and a texture shader with multilayer texture blending Incorporate reflective surfaces into your 3-D scenes by applying an environment-map effect Experiment with the EffectEdit SDK sample to load and edit effect files and preview results on the fly Package multiple object-rendering techniques into a single effect for simpler pipeline state management CD inside Get code for all the sample programs plus SDK About Programmable Shaders. With programmable shaders, you get unprecedented control over rendering options in DirectX 9. You can use vertex shaders to deform geometry, apply procedural textures with pixel and texture shaders, and use effects to encapsulate shader and pipeline state making code reuse a snap. CD features: Sample programs that demonstrate: Vertex shader transformations, lighting, fog, vertex displacement, and vertex blending Pixel shader texturing, 2-D image processing, and lighting Texture shader generation of procedural textures Encapsulating assembly-language and HLSL shaders into an effect Interactive development of an effect using EffectEdit DirectX 9 SDK Fully searchable eBook A Note Regarding the CD or DVD The print version of this book ships with a CD or DVD. For those customers purchasing one of the digital formats in which this book is available, we are pleased to offer the CD/DVD content as a free download via O'Reilly Media's Digital Distribution services. To download this content, please visit O'Reilly's web site, search for the title of this book to find its catalog page, and click on the link below the cover image (Examples, Companion Content, or Practice Files). Note that while we provide as much of the media content as we are able via free download, we are sometimes limited by licensing restrictions. Please direct any questions or concerns to booktech@oreilly.com.

Creative Technologies for Multidisciplinary Applications

IGI Global Given that institutions of higher education have a predisposition to compartmentalize and delineate areas of study, creative technology may seem oxymoronic. On the contrary, the very basis of western thought is found in the idea of transcendent knowledge. The marriage of opposing disciplines therefore acts as a more holistic approach to education. Creative Technologies for Multidisciplinary Applications acts as an inspiration to educators and researchers who wish to participate in the future of such multidisciplinary disciplines. Because creative technology encompasses many applications with the realm of art, gaming, the humanities, and digitization, this book features a diverse collection of relevant research for the modern world. It is a pivotal reference publication for educators, students, and researchers in fields related to sociology, technology, and the humanities.

R for Data Science

Import, Tidy, Transform, Visualize, and Model Data

"O'Reilly Media, Inc." Learn how to use R to turn raw data into insight, knowledge, and understanding. This book introduces you to R, RStudio, and the tidyverse, a collection of R packages designed to work together to make data science fast, fluent, and fun. Suitable for readers with no previous programming experience, R for Data Science is designed to get you doing data science as quickly as possible. Authors Hadley Wickham and Garrett Grolemund guide you through the steps of importing, wrangling, exploring, and modeling your data and communicating the results. You'll get a complete, big-picture understanding of the data science cycle, along with basic tools you need to manage the details. Each section of the book is paired with exercises to help you practice what you've learned along the way. You'll learn how to: Wrangle—transform your datasets into a form convenient for analysis Program—learn powerful R tools for solving data problems with greater clarity and ease Explore—examine your data, generate hypotheses, and quickly test them Model—provide a low-dimensional summary that captures true "signals" in your dataset Communicate—learn R Markdown for integrating prose, code, and results

Oil & Gas Engineering Guide (The) - 2nd ED

Editions TECHNIP This book provides the reader with: • a comprehensive description of engineering activities carried out on oil & gas projects, • a description of the work of each engineering discipline, including illustrations of all common documents, • an overall view of the plant design sequence and schedule, • practical tools to manage and control engineering activities. This book is designed to serve as a map to anyone involved with engineering activities. It enables the reader to get immediately oriented in any engineering development, to know which are the critical areas to monitor and the proven methods to apply. It will fulfill the needs of anyone wishing to improve engineering and project execution. Table des matières : 1. Project Engineering. 2. The Design Basis. 3. Process. 4. Equipment/Mechanical. 5. Plant Layout. 6. Safety & Environment. 7. Civil Engineering. 8. Materials & Corrosion. 9. Piping. 10. Plant Model. 11. Instrumentation and Control. 12. Electrical. 13. Off-Shore. 14. The Overall Work Process. 15. BASIC, FEED and Detail Design. 16. Matching the Project Schedule. 17. Engineering Management. 18. Methods & Tools. 19. Field Engineering. 20. Revamping.

Applied Text Analysis with Python

Enabling Language-Aware Data Products with Machine Learning

"O'Reilly Media, Inc." From news and speeches to informal chatter on social media, natural language is one of the richest and most underutilized sources of data. Not only does it come in a constant stream, always changing and adapting in context; it also contains information that is not conveyed by traditional data sources. The key to unlocking natural language is through the creative application of text analytics. This practical book presents a data scientist's approach to building language-aware products with applied machine learning. You'll learn robust, repeatable, and scalable techniques for text analysis with Python, including contextual and linguistic feature engineering, vectorization, classification, topic modeling, entity resolution, graph analysis, and visual steering. By the end of the book, you'll be equipped with practical methods to solve any number of complex real-world problems. Preprocess and vectorize text into high-dimensional feature representations Perform document classification and topic modeling Steer the model selection process with visual diagnostics Extract key phrases, named entities, and graph structures to reason about data in text Build a dialog framework to enable chatbots and language-driven interaction Use Spark to scale processing power and neural networks to scale model complexity

Blender Studio Projects

Digital Movie-Making

John Wiley & Sons

Research Anthology on Recent Trends, Tools, and Implications of Computer Programming

IGI Global Programming has become a significant part of connecting theoretical development and scientific application computation. Computer programs and processes that take into account the goals and needs of the user meet with the greatest success, so it behooves software engineers to consider the human element inherent in every line of code they write. Research Anthology on Recent Trends, Tools, and Implications of Computer Programming is a vital reference source that examines the latest scholarly material on trends, techniques, and uses of various programming applications and examines the benefits and challenges of these computational developments. Highlighting a range of topics such as coding standards, software engineering, and computer systems development, this multi-volume book is ideally designed for programmers, computer scientists, software developers, analysts, security experts, IoT software programmers, computer and software engineers, students, professionals, and researchers.

Doing Meta-Analysis with R

A Hands-On Guide

CRC Press Doing Meta-Analysis with R: A Hands-On Guide serves as an accessible introduction on how meta-analyses can be conducted in R. Essential steps for meta-analysis are covered, including calculation and pooling of outcome measures, forest plots, heterogeneity diagnostics, subgroup analyses, meta-regression, methods to control for publication bias, risk of bias assessments and plotting tools. Advanced but highly relevant topics such as network meta-analysis, multi-three-level meta-analyses, Bayesian meta-analysis approaches and SEM meta-analysis are also covered. A companion R package, dmetar, is introduced at the beginning of the guide. It contains data sets and several helper functions for the meta and metafor package used in the guide. The programming and statistical background covered in the book are kept at a non-expert level, making the book widely accessible. Features • Contains two introductory chapters on how to set up an R environment and do basic imports/manipulations of meta-analysis data, including exercises • Describes statistical concepts clearly and concisely before applying them in R • Includes step-by-step guidance through the coding required to perform meta-analyses, and a companion R package for the book

Data Pipelines with Apache Airflow

Simon and Schuster "An Airflow bible. Useful for all kinds of users, from novice to expert." - Rambabu Posa, Sai Aashika Consultancy Data Pipelines with Apache Airflow teaches you how to build and maintain effective data pipelines. A successful pipeline moves data efficiently, minimizing pauses and blockages between tasks, keeping every process along the way operational. Apache Airflow provides a single customizable environment for building and managing data pipelines, eliminating the need for a hodgepodge collection of tools, snowflake code, and homegrown processes. Using real-world scenarios and examples, Data Pipelines with Apache Airflow teaches you how to simplify and automate data pipelines, reduce operational overhead, and smoothly integrate all the technologies in your stack. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Data pipelines manage the flow of data from initial collection through consolidation, cleaning, analysis, visualization, and more. Apache Airflow provides a single platform you can use to design, implement, monitor, and maintain your pipelines. Its easy-to-use UI, plug-and-play options, and flexible Python scripting make Airflow perfect for any data management task. About the book Data Pipelines with Apache Airflow teaches you how to build and maintain effective data pipelines. You'll explore the most common usage patterns, including aggregating multiple data sources, connecting to and from data lakes, and cloud deployment. Part reference and part tutorial, this practical guide covers every aspect of the directed acyclic graphs (DAGs) that power Airflow, and how to customize them for your pipeline's needs. What's inside Build, test, and deploy Airflow pipelines as DAGs Automate moving and transforming data Analyze historical datasets using backfilling Develop custom components Set up Airflow in production environments About the reader For DevOps, data engineers, machine learning engineers, and sysadmins with intermediate Python skills. About the author Bas Harens and Julian de Ruiter are data engineers with extensive experience using Airflow to develop pipelines for major companies. Bas is also an Airflow committer. Table of Contents PART 1 - GETTING STARTED 1 Meet Apache Airflow 2 Anatomy of an Airflow DAG 3 Scheduling in Airflow 4 Templating tasks using the Airflow context 5 Defining dependencies between tasks PART 2 - BEYOND THE BASICS 6 Triggering workflows 7 Communicating with external systems 8 Building custom components 9 Testing 10 Running tasks in containers PART 3 - AIRFLOW IN PRACTICE 11 Best practices 12 Operating Airflow in production 13 Securing Airflow 14 Project: Finding the fastest way to get around NYC PART 4 - IN THE CLOUDS 15 Airflow in the clouds 16 Airflow on AWS 17 Airflow on Azure 18 Airflow in GCP

XNA Game Studio 4.0 Programming

Developing for Windows Phone 7 and Xbox 360

Pearson Education Get Started Fast with XNA Game Studio 4.0—and Build Great Games for Both Windows® Phone 7 and Xbox 360® This is the industry's best reference and tutorial for all aspects of XNA Game Studio 4.0 programming on all supported platforms, from Xbox 360 to Windows Phone 7 and Windows PCs. The only game development book authored by Microsoft XNA development team members, it offers deep insider insights you won't get anywhere else—including thorough coverage of new Windows Phone APIs for mobile game development. You'll quickly build simple games and get comfortable with Microsoft's powerful XNA Game Studio 4.0 toolset. Next, you'll drill down into every area of XNA, including graphics, input, audio, video, storage, GamerServices, and networking. Miller and Johnson present especially thorough coverage of 3D graphics, from Reach and HiDef to textures, effects, and avatars. Throughout, they introduce new concepts with downloadable code examples designed to help you jumpstart your own projects. Coverage includes Downloading, installing, and getting started with XNA Game Studio 4 Building on capabilities provided in the default game template Using 2D sprites, textures, sprite operations, blending, and SpriteFonts Creating high-performance 3D graphics with XNA's newly simplified APIs Loading, generating, recording, and playing audio Supporting keyboards, mice, Xbox 360 controllers, Touch, accelerometer, and GPS inputs Managing all types of XNA storage Using avatars as characters in your games Utilizing gamer types, player profiles, presence information, and other GamerServices Supporting Xbox LIVE and networked games Creating higher-level input systems that seamlessly manage cross-platform issues From Windows Phone 7 mobile gaming to Xbox 360, XNA Game Studio 4.0 creates huge new opportunities for experienced Microsoft developers. This book helps you build on skills you already have, to create the compelling games millions of users are searching for.

Machine Learning with SAS Viya

SAS Institute Master machine learning with SAS Viya! Machine learning can feel intimidating for new practitioners. Machine Learning with SAS Viya provides everything you need to know to get started with machine learning in SAS Viya, including decision trees, neural networks, and support vector machines. The analytics life cycle is covered from data preparation and discovery to deployment. Working with open-source code? Machine Learning with SAS Viya has you covered - step-by-step instructions are given on how to use SAS Model Manager tools with open source. SAS Model Studio features are highlighted to show how to carry out machine learning in SAS Viya. Demonstrations, practice tasks, and quizzes are included to help sharpen your skills. In this book, you will learn about: Supervised and unsupervised machine learning Data preparation and dealing with missing and unstructured data Model building and selection Improving and optimizing models Model deployment and monitoring performance

Business in Real-Time Using Azure IoT and Cortana Intelligence Suite

Driving Your Digital Transformation

Apress Learn how today's businesses can transform themselves by leveraging real-time data and advanced machine learning analytics. This book provides prescriptive guidance for architects and developers on the design and development of modern Internet of Things (IoT) and Advanced Analytics solutions. In addition, Business in Real-Time Using Azure IoT and Cortana Intelligence Suite offers patterns and practices for those looking to engage their customers and partners through Software-as-a-Service solutions that work on any device. Whether you're working in Health & Life Sciences, Manufacturing, Retail, Smart Cities and Buildings or Process Control, there exists a common platform from which you can create your targeted vertical solutions. Business in Real-Time Using Azure IoT and Cortana Intelligence Suite uses a reference architecture as a road map. Building on Azure's PaaS services, you'll see how a solution architecture unfolds that demonstrates a complete end-to-end IoT and Advanced Analytics scenario. What You'll Learn: Automate your software product life cycle using PowerShell, Azure Resource Manager Templates, and Visual Studio Team Services Implement smart devices using Node.js and C# Use Azure Streaming Analytics to ingest millions of events Provide both "Hot" and "Cold" path outputs for real-time alerts, data transformations, and aggregation analytics Implement batch processing using Azure Data Factory Create a new form of Actionable Intelligence (AI) to drive mission critical business processes Provide rich Data Visualizations across a wide variety of mobile and web devices Who This Book is For: Solution Architects, Software Developers, Data Architects, Data Scientists, and CIO/CTA Technical Leadership Professionals

Exploring SAS Viya

Data Mining and Machine Learning

SAS Visual Data Mining and Machine Learning, powered by SAS Viya, means that users of all skill levels can visually explore data on their own while drawing on powerful in-memory technologies for faster analytic computations and discoveries. You can manually program with custom code or use the features in SAS Studio, Model Studio, and SAS Visual Analytics to automate your data manipulation and modeling. These programs offer a flexible, easy-to-use, self-service environment that can scale on an enterprise-wide level. In this book, we will explore some of the many features of SAS Visual Data Mining and Machine Learning including: programming in the Python interface; new, advanced data mining and machine learning procedures; pipeline building in Model Studio, and model building and comparison in SAS Visual Analytics.

Zen of Cloud

Learning Cloud Computing by Examples, Second Edition

CRC Press *This book provides a comprehensive review of cloud philosophy, design principals, development trends as well as practical patterns to guide readers to understand, design and implement successful cloud-based solutions. This book provides both "hows" and "whys." It peers behind the buzz words such as machine learning, containers, and blockchains to help readers understand how to put those technologies into practical use. This unique book covers a broad spectrum of technologies of cloud computing.*

Continuous Delivery with the Windows Stack

Engineering for Ongoing Deployment with Windows, Azure and Visual Studio

"In this Continuous Delivery with the Windows Stack training course, expert authors Marcel de Vries and René van Osnabrugge will teach you everything you need to know about deployment with Windows, Azure, and Visual Studio. This course is designed for users that are already familiar with the Windows Stack. You will start by learning about continuous delivery, then jump into learning about version control as the foundation of continuous delivery. From there, Marcel and René will teach you how to test within a continuous delivery pipeline, including how to categorize different test types, start test automation with unit tests, and use executable specifications. This video tutorial also covers release management and feedback loops. Finally, you will learn advanced techniques, such as feature toggles, deployment slots, and traffic manager."--Resource description page.

Natural Language Processing with AWS AI Services

Derive strategic insights from unstructured data with Amazon Textract and Amazon Comprehend

Packt Publishing Ltd *Work through interesting real-life business use cases to uncover valuable insights from unstructured text using AWS AI services Key FeaturesGet to grips with AWS AI services for NLP and find out how to use them to gain strategic insightsRun Python code to use Amazon Textract and Amazon Comprehend to accelerate business outcomesUnderstand how you can integrate human-in-the-loop for custom NLP use cases with Amazon A2IBook Description Natural language processing (NLP) uses machine learning to extract information from unstructured data. This book will help you to move quickly from business questions to high-performance models in production. To start with, you'll understand the importance of NLP in today's business applications and learn the features of Amazon Comprehend and Amazon Textract to build NLP models using Python and Jupyter Notebooks. The book then shows you how to integrate AI in applications for accelerating business outcomes with just a few lines of code. Throughout the book, you'll cover use cases such as smart text search, setting up compliance and controls when processing confidential documents, real-time text analytics, and much more to understand various NLP scenarios. You'll deploy and monitor scalable NLP models in production for real-time and batch requirements. As you advance, you'll explore strategies for including humans in the loop for different purposes in a document processing workflow. Moreover, you'll learn best practices for auto-scaling your NLP inference for enterprise traffic. Whether you're new to ML or an experienced practitioner, by the end of this NLP book, you'll have the confidence to use AWS AI services to build powerful NLP applications. What you will learnAutomate various NLP workflows on AWS to accelerate business outcomesUse Amazon Textract for text, tables, and handwriting recognition from images and PDF filesGain insights from unstructured text in the form of sentiment analysis, topic modeling, and more using Amazon ComprehendSet up end-to-end document processing pipelines to understand the role of humans in the loopDevelop NLP-based intelligent search solutions with just a few lines of codeCreate both real-time and batch document processing pipelines using PythonWho this book is for If you're an NLP developer or data scientist looking to get started with AWS AI services to implement various NLP scenarios quickly, this book is for you. It will show you how easy it is to integrate AI in applications with just a few lines of code. A basic understanding of machine learning (ML) concepts is necessary to understand the concepts covered. Experience with Jupyter notebooks and Python will be helpful.*

The Cg Tutorial

The Definitive Guide to Programmable Real-time Graphics

Addison-Wesley Professional *Cg is a complete programming environment for the fast creation of special effects and real-time cinematic quality experiences on multiple platforms. This text provides a guide to the Cg graphics language.*

Deep Learning with R

Simon and Schuster *Summary Deep Learning with R introduces the world of deep learning using the powerful Keras library and its R language interface. The book builds your understanding of deep learning through intuitive explanations and practical examples. Continue your journey into the world of deep learning with Deep Learning with R in Motion, a practical, hands-on video course available exclusively at Manning.com (www.manning.com/livevideo/deep-learning-with-r-in-motion). Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Machine learning has made remarkable progress in recent years. Deep-learning systems now enable previously impossible smart applications, revolutionizing image recognition and natural-language processing, and identifying complex patterns in data. The Keras deep-learning library provides data scientists and developers working in R a state-of-the-art toolset for tackling deep-learning tasks. About the Book Deep Learning with R introduces the world of deep learning using the powerful Keras library and its R language interface. Initially written for Python as Deep Learning with Python by Keras creator and Google AI researcher François Chollet and adapted for R by RStudio founder J. J. Allaire, this book builds your understanding of deep learning through intuitive explanations and practical examples. You'll practice your new skills with R-based applications in computer vision, natural-language processing, and generative models. What's Inside Deep learning from first principles Setting up your own deep-learning environment Image classification and generation Deep learning for text and sequences About the Reader You'll need intermediate R programming skills. No previous experience with machine learning or deep learning is assumed. About the Authors François Chollet is a deep-learning researcher at Google and the author of the Keras library. J.J. Allaire is the founder of RStudio and the author of the R interfaces to TensorFlow and Keras. Table of Contents PART 1 - FUNDAMENTALS OF DEEP LEARNING What is deep learning? Before we begin: the mathematical building blocks of neural networks Getting started with neural networks Fundamentals of machine learning PART 2 - DEEP LEARNING IN PRACTICE Deep learning for computer vision Deep learning for text and sequences Advanced deep-learning best practices Generative deep learning Conclusions*

Mastering Autodesk Maya 2014

Autodesk Official Press

John Wiley & Sons *Hands-on intermediate-to-advanced coverage of the leading 3D software Autodesk Maya is the industry-leading 3D animation and effects software used in movies, visual effects, games, and other genres. If you already know the basics of Maya and are ready to elevate your skills, then this book is for you. Nearly 1,000 pages are packed with organized, professional, and valuable insight on the leading 3D application on the market, enabling you to unlock the software's more complex features. Ideal as both a tutorial and study guide for the Autodesk Maya exam, this Autodesk Official Press book gets you up to speed on Maya's latest features and expands your skills with advanced instruction on cloth, fur, and fluids. Features challenging tutorials and real-world scenarios from some of the leading professionals in the industry Provides you with valuable insight into the entire CG production pipeline Covers the very latest Maya 2014 tools and features, including updates to dynamics, Maya muscle, stereo cameras, assets, rendering with mental ray, and more Helps you gain proficiency in high-level techniques for film, television, game development, and more If you've been looking for a complete, professional quality Maya resource to turn to again and again, look no further than Mastering Autodesk Maya 2104.*

Mastering Shiny

"O'Reilly Media, Inc." Master the Shiny web framework—and take your R skills to a whole new level. By letting you move beyond static reports, Shiny helps you create fully interactive web apps for data analyses. Users will be able to jump between datasets, explore different subsets or facets of the data, run models with parameter values of their choosing, customize visualizations, and much more. Hadley Wickham from RStudio shows data scientists, data analysts, statisticians, and scientific researchers with no knowledge of HTML, CSS, or JavaScript how to create rich web apps from R. This in-depth guide provides a learning path that you can follow with confidence, as you go from a Shiny beginner to an expert developer who can write large, complex apps that are maintainable and performant. Get started: Discover how the major pieces of a Shiny app fit together Put Shiny in action: Explore Shiny functionality with a focus on code samples, example apps, and useful techniques Master reactivity: Go deep into the theory and practice of reactive programming and examine reactive graph components Apply best practices: Examine useful techniques for making your Shiny apps work well in production

Pipeline as Code

Continuous Delivery with Jenkins, Kubernetes, and Terraform

Simon and Schuster Start thinking about your development pipeline as a mission-critical application. Discover techniques for implementing code-driven infrastructure and CI/CD workflows using Jenkins, Docker, Terraform, and cloud-native services. In Pipeline as Code, you will master: Building and deploying a Jenkins cluster from scratch Writing pipeline as code for cloud-native applications Automating the deployment of Dockerized and Serverless applications Containerizing applications with Docker and Kubernetes Deploying Jenkins on AWS, GCP and Azure Managing, securing and monitoring a Jenkins cluster in production Key principles for a successful DevOps culture Pipeline as Code is a practical guide to automating your development pipeline in a cloud-native, service-driven world. You'll use the latest infrastructure-as-code tools like Packer and Terraform to develop reliable CI/CD pipelines for numerous cloud-native applications. Follow this book's insightful best practices, and you'll soon be delivering software that's quicker to market, faster to deploy, and with less last-minute production bugs. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology Treat your CI/CD pipeline like the real application it is. With the Pipeline as Code approach, you create a collection of scripts that replace the tedious web UI wrapped around most CI/CD systems. Code-driven pipelines are easy to use, modify, and maintain, and your entire CI pipeline becomes more efficient because you directly interact with core components like Jenkins, Terraform, and Docker. About the book In Pipeline as Code you'll learn to build reliable CI/CD pipelines for cloud-native applications. With Jenkins as the backbone, you'll programmatically control all the pieces of your pipeline via modern APIs. Hands-on examples include building CI/CD workflows for distributed Kubernetes applications, and serverless functions. By the time you're finished, you'll be able to swap manual UI-based adjustments with a fully automated approach! What's inside Build and deploy a Jenkins cluster on scale Write pipeline as code for cloud-native applications Automate the deployment of Dockerized and serverless applications Deploy Jenkins on AWS, GCP, and Azure Grasp key principles of a successful DevOps culture About the reader For developers familiar with Jenkins and Docker. Examples in Go. About the author Mohamed Labouardy is the CTO and co-founder of Crew.work, a Jenkins contributor, and a DevSecOps evangelist. Table of Contents PART 1 GETTING STARTED WITH JENKINS 1 What's CI/CD? 2 Pipeline as code with Jenkins PART 2 OPERATING A SELF-HEALING JENKINS CLUSTER 3 Defining Jenkins architecture 4 Baking machine images with Packer 5 Discovering Jenkins as code with Terraform 6 Deploying HA Jenkins on multiple cloud providers PART 3 HANDS-ON CI/CD PIPELINES 7 Defining a pipeline as code for microservices 8 Running automated tests with Jenkins 9 Building Docker images within a CI pipeline 10 Cloud-native applications on Docker Swarm 11 Dockerized microservices on K8s 12 Lambda-based serverless functions PART 4 MANAGING, SCALING, AND MONITORING JENKINS 13 Collecting continuous delivery metrics 14 Jenkins administration and best practices

Direct3d ShaderX

Vertex and Pixel Shader Tips and Tricks

Wordware Focusing on Direct3D 8.x, this book shows a wide array of specialized vertex and pixel shader programming tricks from industry experts.

Advances in Visual Computing

6th International Symposium, ISVC 2010, Las Vegas, NV, USA, November 29-December 1, 2010, Proceedings, Part II

Springer It is with great pleasure that we present the proceedings of the 6th International Symposium on Visual Computing (ISVC 2010), which was held in Las Vegas, Nevada. ISVC provides a common umbrella for the four main areas of visual computing including vision, graphics, visualization, and virtual reality. The goal is to provide a forum for researchers, scientists, engineers, and practitioners throughout the world to present their latest research findings, ideas, developments, and applications in the broader area of visual computing. This year, the program consisted of 14 oral sessions, one poster session, 7 special tracks, and 6 keynote presentations. The response to the call for papers was very good; we received over 300 submissions for the main symposium from which we accepted 93 papers for oral presentation and 73 papers for poster presentation. Special track papers were solicited separately through the Organizing and Program Committees of each track. A total of 44 papers were accepted for oral presentation and 6 papers for poster presentation in the special tracks.

Core Internet Application Development Using ASP.NET 2.0

Prentice Hall Professional The Comprehensive Guide to ASP.NET 2.0 for Experienced Developers ASP.NET 2.0 represents a true breakthrough in Web development technology and delivers unprecedented power, flexibility, and efficiency. If you're an experienced programmer who wants to build production-quality Web applications and services with ASP.NET 2.0, this book is the deepest, most practical tutorial you can find. Randy Connolly introduces today's best practices for every facet of ASP.NET 2.0 development. He illuminates ASP.NET 2.0 Web server control architecture, sophisticated user interface capabilities, and navigation controls. He presents systematic, practical coverage of ASP.NET 2.0 data integration, state management, personalization, and more. As with all books in the Prentice Hall Core Series, Core Internet Application Development with ASP.NET 2.0 focuses on solving serious problems with professional-quality code. With practical insights into everything from data binding to security, this is the ASP.NET 2.0 book you've been searching for: a definitive guide to building industrial-strength Web solutions. This Book Delivers Best practices for architecting and implementing state-of-the-art Web applications and services Expert insight into the entire ASP.NET development process, from design through deployment Hundreds of professional-quality code examples, including complete applications and business objects In-depth coverage of the latest ASP.NET features, including master pages, new data source controls, and ASP.NET AJAX (a.k.a. "Atlas") Every Core Series Book Demonstrates practical techniques used by professional developers Features robust, thoroughly tested sample code and realistic examples Focuses on the cutting-edge technologies you need to master today Provides expert advice that will help you build superior software Preface Acknowledgments About the Author Part I: Core ASP.NET Chapter 1: Introducing ASP.NET 2.0 Chapter 2: How ASP.NET Works Chapter 3: Working with the Standard Web Server Controls Chapter 4: The Additional Standard Web Server Controls Chapter 5: Exception Handling and Validation Controls Chapter 6: Customizing and Managing Your Site's Appearance Chapter 7: ASP.NET Site Navigation Part II: Working with Data Chapter 8: Data Binding and Representation Chapter 9: Using ADO.NET Chapter 10: Data Controls Chapter 11: Designing and Implementing Web Applications Chapter 12: Managing ASP.NET State Part III: Implementing Web Applications Chapter 13: Security, Membership, and Role Management 833 Chapter 15: Web Services Chapter 16: Internationalization and Deployment Appendix: ASP.NET AJAX Sneak Peek Index

Production Pipeline Fundamentals for Film and Games

CRC Press Every production is built on the backbone of the pipeline. While a functional and flexible pipeline can't assure a successful project, a weak pipeline can guarantee its demise. A solid pipeline produces a superior product in less time and with happier artists who can remain creative throughout the grueling production schedule. Walk through the foundational layers of the production pipeline, including IT infrastructure, software development practices and deployment policies, asset management, shot management, and rendering management. Production Pipeline Fundamentals for Film and Games will teach you how to direct limited resources to the right technological initiatives, getting the most for every dollar spent. Learn how to prepare for and manage all aspects of the pipeline with this entirely unique, one-of-a-kind guide. Expand your knowledge with real-world pipeline secrets handed to you by a stellar group of professionals from across the globe. Visit the companion website for even further resources on the pipeline.

Programming Entity Framework

Code First

"O'Reilly Media, Inc." Annotation Code first is an additional means of building a model to be used with the Entity Framework and is creating a lot of excitement in the .NET development community. The reader will begin with an overview of what code first is, why it was created, how it fits into the Entity Framework and when to use it over the alternatives.

C# 8.0 and .NET Core 3.0 – Modern Cross-Platform Development

Build applications with C#, .NET Core, Entity Framework Core, ASP.NET Core, and ML.NET using Visual Studio Code, 4th Edition

Packt Publishing Ltd *Publisher's Note: Microsoft ceased support for .NET Core 3.0 in March 2020. A new edition of this book is available that uses .NET 6 (an LTS release with support up until November 2024), C# 10, and Visual Studio 2022, as well as Visual Studio Code. Key Features* Build modern, cross-platform applications with .NET Core 3.0 Get up to speed with C#, and up to date with all the latest features of C# 8.0 Start creating professional web applications with ASP.NET Core 3.0 *Book Description* In C# 8.0 and .NET Core 3.0 – Modern Cross-Platform Development, Fourth Edition, expert teacher Mark J. Price gives you everything you need to start programming C# applications. This latest edition uses the popular Visual Studio Code editor to work across all major operating systems. It is fully updated and expanded with new chapters on Content Management Systems (CMS) and machine learning with ML.NET. The book covers all the topics you need. Part 1 teaches the fundamentals of C#, including object-oriented programming, and new C# 8.0 features such as nullable reference types, simplified switch pattern matching, and default interface methods. Part 2 covers the .NET Standard APIs, such as managing and querying data, monitoring and improving performance, working with the filesystem, async streams, serialization, and encryption. Part 3 provides examples of cross-platform applications you can build and deploy, such as web apps using ASP.NET Core or mobile apps using Xamarin.Forms. The book introduces three technologies for building Windows desktop applications including Windows Forms, Windows Presentation Foundation (WPF), and Universal Windows Platform (UWP) apps, as well as web applications, web services, and mobile apps. What you will learn Build cross-platform applications for Windows, macOS, Linux, iOS, and Android Explore application development with C# 8.0 and .NET Core 3.0 Explore ASP.NET Core 3.0 and create professional web applications Learn object-oriented programming and C# multitasking Query and manipulate data using LINQ Use Entity Framework Core and work with relational databases Discover Windows app development using the Universal Windows Platform and XAML Build mobile applications for iOS and Android using Xamarin.Forms Who this book is for Readers with some prior programming experience or with a science, technology, engineering, or mathematics (STEM) background, who want to gain a solid foundation with C# 8.0 and .NET Core 3.0.

bookdown

Authoring Books and Technical Documents with R Markdown

CRC Press *bookdown: Authoring Books and Technical Documents with R Markdown* presents a much easier way to write books and technical publications than traditional tools such as LaTeX and Word. The bookdown package inherits the simplicity of syntax and flexibility for data analysis from R Markdown, and extends R Markdown for technical writing, so that you can make better use of document elements such as figures, tables, equations, theorems, citations, and references. Similar to LaTeX, you can number and cross-reference these elements with bookdown. Your document can even include live examples so readers can interact with them while reading the book. The book can be rendered to multiple output formats, including LaTeX/PDF, HTML, EPUB, and Word, thus making it easy to put your documents online. The style and theme of these output formats can be customized. We used books and R primarily for examples in this book, but bookdown is not only for books or R. Most features introduced in this book also apply to other types of publications: journal papers, reports, dissertations, course handouts, study notes, and even novels. You do not have to use R, either. Other choices of computing languages include Python, C, C++, SQL, Bash, Stan, JavaScript, and so on, although R is best supported. You can also leave out computing, for example, to write a fiction. This book itself is an example of publishing with bookdown and R Markdown, and its source is fully available on GitHub.

Proteomics Data Analysis

This thorough book collects methods and strategies to analyze proteomics data. It is intended to describe how data obtained by gel-based or gel-free proteomics approaches can be inspected, organized, and interpreted to extrapolate biological information. Organized into four sections, the volume explores strategies to analyze proteomics data obtained by gel-based approaches, different data analysis approaches for gel-free proteomics experiments, bioinformatic tools for the interpretation of proteomics data to obtain biological significant information, as well as methods to integrate proteomics data with other omics datasets including genomics, transcriptomics, metabolomics, and other types of data. Written for the highly successful *Methods in Molecular Biology* series, chapters include the kind of detailed implementation advice that will ensure high quality results in the lab. Authoritative and practical, *Proteomics Data Analysis* serves as an ideal guide to introduce researchers, both experienced and novice, to new tools and approaches for data analysis to encourage the further study of proteomics.

Pro Android Games

L Edition

Apress *Combining actionable, real-world source code with graphics, Pro Android Games, Third Edition* shows you how to build more sophisticated and addictive Android game apps with minimum effort. Harness the power of the latest Android 5.0 SDK to bring countless legendary, action-packed PC games to the Android platform. With actionable real-world source code, this one of a kind book shows you how to build more sophisticated and addictive Android game apps, by leveraging the power of the recent advancements found in the new Android 5.0 software development kit as well as those you've counted on in earlier releases. Multi-touch code gives these games and their players dynamic input and exchange ability, for a more realistic arcade game experience. Faster and better performance offers Android game players a more seamless, fun arcade experience like never before. There is also improved native C/C++ integration with Android's NDK as well, which makes coding, compiling, and converting both productive and efficient with gains in app performance. *Pro Android Games, Third Edition* features the following improvements: Updates to the latest version of the Android SDK, NDK, plus the latest Android Studio and Eclipse IDEs Greater focus on tablets, ever changing device resolutions, and hardware specs Native game development and hardware accelerated graphics Bigger and better real world engines, such as Quake I and II plus an oldie from the previous edition: Doom Coverage of the new Android TV SDK APIs, UI, UX, multi-touch and multi-tasking features available with the Android 5.0 release Advanced techniques for improving your game playing experience including better multi-tasking, improved performance optimization, battery management and more A "Quake 3D"-like game app case study You'll definitely have fun, and perhaps you'll even make some money. Enjoy! In the last few years, Android has progressed with the debut of better fonts, new User Interface and Experience (UI/UX) APIs, tablet considerations, multi-touch capabilities, multi-tasking, faster performance, improved battery management techniques, and now the new Android TV SDK Apps for the Android game app developer repertoire.

Migrating to Azure

Transforming Legacy Applications into Scalable Cloud-First Solutions

Apress *Design an enterprise solution from scratch that allows the migration of a legacy application. Begin with the planning and design phase and be guided through all the stages of selecting the architecture framework that fits your enterprise. Join Microsoft MVP Josh Garverick as he addresses all major areas of design and implementation—application, infrastructure, data, security, and deployment—while leveraging the power and tools of Visual Studio Team Services (VSTS) to bring DevOps to the forefront. With an emphasis on principles and best practices of enterprise design, you will discover how to recognize existing patterns within the legacy platform and to identify potential risks, bottlenecks, and candidates for automation. What You'll Learn* Accurately and completely capture baseline information about a legacy system Leverage enterprise patterns for constructing next-generation platforms in the cloud Design, plan, and implement deployment pipelines to enable continuous delivery Identify and implement cloud-based platform components to reduce total cost of ownership Understand testing and validation: iterative component authoring, monitoring, deployment, and performance Price and perform capacity planning for cloud-based infrastructure and workloads Who This Book Is For Enterprise architects and IT professionals who are required to keep legacy applications relevant in today's cloud-first world

ABM Is B2B

Why B2B Marketing and Sales Is Broken and How to Fix It

IdeaPress Publishing *Instant Bestseller on Amazon in Marketing and Sales! FACT: Less than ONE percent of all leads become customers. As a business, how can you break that trend and achieve client fidelity? In this book we reveal the secrets behind the framework that will sell and retain your customers. Did you know that less than one percent of all leads become customers? It is a true and shocking stat, but there is a way to stop the waste and flip this around. In this highly anticipated book, we reveal the secrets behind our signature TEAM - Target, Engage, Activate, and Measure - framework to transform your approach to market, increase sales, and retain your ideal customers. Account-Based Marketing (ABM) is the new B2B. It's time to challenge the status quo of B2B Marketing and Sales, and transition to what the business arena already expects as the updated B2B model. A transformation like this can only happen through an account-based approach that unites marketing, sales, and customer success teams (go-to-market teams) as #OneTeam. In summary, the TEAM framework coupled with the account-based approach enables your company to focus on the target accounts, engage them in a meaningful way, activate the sales team with top tier accounts proactively, and finally measure success based on business outcomes over vanity metrics. It's time to take the lead and transition your business to ABM. The process is simple when you have the right book - ABM is B2B. What are you waiting for?*

Unreal for Mobile and Standalone VR

Create Professional VR Apps Without Coding

Apply the techniques needed to build VR applications for mobile and standalone head-mounted displays (HMDs) using the Unreal Engine. This book covers the entire VR ecosystem including production tools, Unreal engine, workflows, performance and optimization, and presents two fully-developed projects to reinforce what you've learned. Media designers, CG artists and other creatives will be able to take advantage of real-time engine techniques and easy-to-learn visual scripting logic to turn their creations into immersive and interactive VR worlds. Gear VR, the Oculus Go and other Android based VR HMDs are becoming exciting new platforms for immersive business presentations, entertainment and educational solutions. The Unreal engine, one of the world's most powerful and popular game engines, is now free to use and has become increasingly popular for real-time visualizations and enterprise solutions in recent years. With Unreal's powerful blueprint visual scripting system, non-coders can now design blueprints in Unreal, unlock the power of rapid prototyping, and create complex interactions without a line of code. Get your copy of Unreal for Mobile and Standalone VR today and begin using this powerful tool-set to create high-end VR apps for a wide range of applications from games, B2B, to education. What You'll Learn Explore the VR ecosystem, including history, recent trends and future outlook Review tool set, graphics and animation pipeline (Blender, Zbrush, Substance Painter and others) Examine graphics optimization techniques Set up a project and the target platform Design interaction with Unreal blueprints Deployments, testing, further optimization Who This Book Is For Multimedia designers, CG artists, producers, app developers. No coding experience is required.

Computer Graphics Programming in OpenGL with C++

Mercury Learning and Information This new edition provides step-by-step instruction on modern 3D graphics shader programming in OpenGL with C++, along with its theoretical foundations. It is appropriate both for computer science graphics courses and for professionals interested in mastering 3D graphics skills. It has been designed in a 4-color, "teach-yourself" format with numerous examples that the reader can run just as presented. Every shader stage is explored, from the basics of modeling, textures, lighting, shadows, etc., through advanced techniques such as tessellation, normal mapping, noise maps, as well as new chapters on simulating water, stereoscopy, and ray tracing. FEATURES: Covers modern OpenGL 4.0+ shader programming in C++, with instructions for both PC/Windows and Macintosh Adds new chapters on simulating water, stereoscopy, and ray tracing Includes companion files with code, object models, figures, and more (also available for downloading by writing to the publisher) Illustrates every technique with running code examples. Everything needed to install the libraries, and complete source code for each example Includes step-by-step instruction for using each GLSL programmable pipeline stage (vertex, tessellation, geometry, and fragment) Explores practical examples for modeling, lighting, and shadows (including soft shadows), terrain, water, and 3D materials such as wood and marble Explains how to optimize code for tools such as Nvidia's Nsight debugger.

Ray Tracing Gems

High-Quality and Real-Time Rendering with DXR and Other APIs

Apress This book is a must-have for anyone serious about rendering in real time. With the announcement of new ray tracing APIs and hardware to support them, developers can easily create real-time applications with ray tracing as a core component. As ray tracing on the GPU becomes faster, it will play a more central role in real-time rendering. Ray Tracing Gems provides key building blocks for developers of games, architectural applications, visualizations, and more. Experts in rendering share their knowledge by explaining everything from nitty-gritty techniques that will improve any ray tracer to mastery of the new capabilities of current and future hardware. What you'll learn: The latest ray tracing techniques for developing real-time applications in multiple domains Guidance, advice, and best practices for rendering applications with Microsoft DirectX Raytracing (DXR) How to implement high-performance graphics for interactive visualizations, games, simulations, and more Who this book is for: Developers who are looking to leverage the latest APIs and GPU technology for real-time rendering and ray tracing Students looking to learn about best practices in these areas Enthusiasts who want to understand and experiment with their new GPUs

Hands-On Machine Learning with IBM Watson

Leverage IBM Watson to implement machine learning techniques and algorithms using Python

Packt Publishing Ltd Learn how to build complete machine learning systems with IBM Cloud and Watson Machine learning services Key Features Implement data science and machine learning techniques to draw insights from real-world data Understand what IBM Cloud platform can help you to implement cognitive insights within applications Understand the role of data representation and feature extraction in any machine learning system Book Description IBM Cloud is a collection of cloud computing services for data analytics using machine learning and artificial intelligence (AI). This book is a complete guide to help you become well versed with machine learning on the IBM Cloud using Python. Hands-On Machine Learning with IBM Watson starts with supervised and unsupervised machine learning concepts, in addition to providing you with an overview of IBM Cloud and Watson Machine Learning. You'll gain insights into running various techniques, such as K-means clustering, K-nearest neighbor (KNN), and time series prediction in IBM Cloud with real-world examples. The book will then help you delve into creating a Spark pipeline in Watson Studio. You will also be guided through deep learning and neural network principles on the IBM Cloud using TensorFlow. With the help of NLP techniques, you can then brush up on building a chatbot. In later chapters, you will cover three powerful case studies, including the facial expression classification platform, the automated classification of lithofacies, and the multi-biometric identity authentication platform, helping you to become well versed with these methodologies. By the end of this book, you will be ready to build efficient machine learning solutions on the IBM Cloud and draw insights from the data at hand using real-world examples. What you will learn Understand key characteristics of IBM machine learning services Run supervised and unsupervised techniques in the cloud Understand how to create a Spark pipeline in Watson Studio Implement deep learning and neural networks on the IBM Cloud with TensorFlow Create a complete, cloud-based facial expression classification solution Use biometric traits to build a cloud-based human identification system Who this book is for This beginner-level book is for data scientists and machine learning engineers who want to get started with IBM Cloud and its machine learning services using practical examples. Basic knowledge of Python and some understanding of machine learning will be useful.

Azure Data Scientist Associate Certification Guide

A hands-on guide to machine learning in Azure and passing the Microsoft Certified DP-100 exam

Packt Publishing Ltd Develop the skills you need to run machine learning workloads in Azure and pass the DP-100 exam with ease Key Features Create end-to-end machine learning training pipelines, with or without code Track experiment progress using the cloud-based MLflow-compatible process of Azure ML services Operationalize your machine learning models by creating batch and real-time endpoints Book Description The Azure Data Scientist Associate Certification Guide helps you acquire practical knowledge for machine learning experimentation on Azure. It covers everything you need to pass the DP-100 exam and become a certified Azure Data Scientist Associate. Starting with an introduction to data science, you'll learn the terminology that will be used throughout the book and then move on to the Azure Machine Learning (Azure ML) workspace. You'll discover the studio interface and manage various components, such as data stores and compute clusters. Next, the book focuses on no-code and low-code experimentation, and shows you how to use the Automated ML wizard to locate and deploy optimal models for your dataset. You'll also learn how to run end-to-end data science experiments using the designer provided in Azure ML Studio. You'll then explore the Azure ML Software Development Kit (SDK) for Python and advance to creating experiments and publishing models using code. The book also guides you in optimizing your model's hyperparameters using Hyperdrive before demonstrating how to use responsible AI tools to interpret and debug your models. Once you have a trained model, you'll learn to operationalize it for batch or real-time inferences and monitor it in production. By the end of this Azure certification study guide, you'll have gained the knowledge and the practical skills required to pass the DP-100 exam. What you will learn Create a working environment for data science workloads on Azure Run data experiments using Azure Machine Learning services Create training and inference pipelines using the designer or code Discover the best model for your dataset using Automated ML Use hyperparameter tuning to optimize trained models Deploy, use, and monitor models in production Interpret the predictions of a trained model Who this book is for This book is for developers who want to infuse their applications with AI capabilities and data scientists looking to scale their machine learning experiments in the Azure cloud. Basic knowledge of Python is needed to follow the code samples used in the book. Some experience in training machine learning models in Python using common frameworks like scikit-learn will help you understand the content more easily.

Jenkins 2: Up and Running

Evolve Your Deployment Pipeline for Next Generation Automation

"O'Reilly Media, Inc." Design, implement, and execute continuous delivery pipelines with a level of flexibility, control, and ease of maintenance that was not possible with Jenkins before. With this practical book, build administrators, developers, testers, and other professionals will learn how the features in Jenkins 2 let you define pipelines as code, leverage integration with other key technologies, and create automated, reliable pipelines to simplify and accelerate your DevOps environments. Author Brent Laster shows you how Jenkins 2 is significantly different from the more traditional, web-only versions of this popular open source automation platform. If you're familiar with Jenkins and want to take advantage of the new technologies to transform your legacy pipelines or build new modern, automated continuous delivery environments, this is your book. Create continuous delivery pipelines as code with the Jenkins domain-specific language Get practical guidance on how to migrate existing jobs and pipelines Harness best practices and new methods for controlling access and security Explore the structure, implementation, and use of shared pipeline libraries Learn the differences between declarative syntax and scripted syntax Leverage new and existing project types in Jenkins Understand and use the new Blue Ocean graphical interface Take advantage of the capabilities of the underlying OS in your pipeline Integrate analysis tools, artifact management, and containers