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KEY=DEEP - RAMOS SAUNDERS

Storage Design and Implementation in vSphere 6 A Technology Deep Dive VMWare Press This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Now fully updated: The authoritative, comprehensive guide to vSphere 6 storage implementation and management Effective VMware virtualization storage planning and management has become crucial—but it can be extremely complex. Now, VMware’s leading storage expert thoroughly demystifies the “black box” of vSphere 6 storage and provides illustrated, step-by-step procedures for performing every key task associated with it. Mostafa Khalil presents techniques based on years of personal experience helping customers troubleshoot storage in their vSphere production environments. Drawing on more experience than anyone else in the field, he combines expert guidelines, insights for better architectural design, best practices for planning and management, common configuration details, and deep dives into both vSphere and third-party storage. Storage Design and Implementation in vSphere 6, Second Edition will give you the deep understanding you need to make better upfront storage decisions, quickly solve problems if they arise, and keep them from occurring in the first place. Coverage includes: Planning and implementing Fibre Channel, FCoE, and iSCSI storage in vSphere virtualized environments Implementing vSphere Pluggable Storage Architecture native multipathing, SATP, PSP, plug-ins, rules, registration, and more Working with Active/Passive and Pseudo-Active/Active ALUA SCSI-3 storage arrays Maximizing availability with multipathing and failover Improving efficiency and value by unifying and centrally managing heterogeneous storage configurations

**Understanding Storage Virtualization Devices (SVDs) and designing storage to take advantage of them
Implementing VMware Virtual Machine File System (VMFS) to maximize performance and resource utilization
Working with virtual disks and raw device mappings (RDMs)
Managing snapshots in VMFS and Virtual Volumes environments
Implementing and administering NFS, VAAI, Storage vMotion, VisorFS, and VASA
Integrating VSAN core and advanced features
Using Virtual Volumes to streamline storage operations and gain finer VM-level control over external storage
Storage Implementation in VSphere 5.0
Unblockchain A Brain-Friendly Guide for Blockchain, from Bitcoin to Ethereum
Deep-Dive Henrique Centieiro
What will you learn with this book? Why is everyone talking about blockchain? What is it all about? Wouldn't it be great if there is something out there that can help you understand the latest trending technology - Blockchain in a relaxed manner with tons of graphics, which is even more fun than a barrel full of monkeys?! With this book Unblockchain, you will learn how blockchains are architected, what the main technology components are such as cryptography, hashing, applications as well as the constraints and limitations of blockchain. In this book we are going to cover in dept all the components of blockchains. We are going to understand how the hashing mechanisms work, what the cryptography role is, how transactions are signed and much more! We are also going to look at the blockchain use cases, understand the blockchain architecture and even deploy an Ethereum node and play around with the blockchain. I will help you to better understand when to use blockchain, the key concepts, the industry jargon and a lot of additional information that will help you interact with stakeholders in any blockchain project you may get involved in. No matter what your background is, you will be able to follow along with this book and do the hands-on! After this, you will for sure be able to get involved in any blockchain project and to show off your knowledge in front of your pals! Why does this book look so different? Based on cognitive science and learning theory researches, Unblockchain uses a visually rich format to engage with your mind, rather than using solely heavy boring text. You will also have a few hands-on that will help you understand the technology by trying it yourself! This multi-sensory book is designed to turn you into a blockchain expert!**

**PowerShell Deep Dives Simon and Schuster Summary
Here's your chance to learn from the best in the business. PowerShell Deep Dives is a trove of essential techniques, practical guidance, and the expert insights you earn only through years of experience. Editors Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic hand-picked the 28 chapters in the book's four parts: Administration, Scripting, Development, and Platforms. About the Technology PowerShell has permanently changed Windows administration. This powerful scripting and automation tool allows you to control virtually every aspect of Windows and most Microsoft servers like IIS and SQL Server. Here's your chance to learn from the best in the business. About this Book PowerShell Deep Dives is a trove of essential techniques and practical guidance. It is rich with insights from**

experts who won them through years of experience. The book's 28 chapters, grouped in four parts (Administration, Scripting, Development, and Platforms), were hand-picked by four section editors: Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic. Whether you're just getting started with PowerShell or you already use it daily, you'll find yourself returning to this book over and over. What's Inside

Managing systems through a keyhole
The Ten Commandments of PowerShell scripting
Scalable scripting for large datasets
Adding automatic remoting
Provisioning web servers and websites automatically to IIS 8
And 23 more fantastic chapters
Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

About the Authors
Editors Jeffery Hicks, Richard Siddaway, Oisin Grehan, and Aleksandar Nikolic are joined by PowerShell experts Chris Bellee, Bartek Bielawski, Robert C. Cain, Jim Christopher, Adam Driscoll, Josh Gavant, Jason Helmick, Don Jones, Ashley McGlone, Jonathan Medd, Ben Miller, James O'Neill, Arnaud Petitjean, Vadims Podans, Karl Prosser, Boe Prox, Matthew Reynolds, Mike Robbins, Donabel Santos, Will Steele, Trevor Sullivan, and Jeff Wouters.

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Hyperautomation
Bookbaby
HYPERAUTOMATION is a collection of expert essays on low-code development and the future of business process automation. In each chapter, an academic, analyst, implementer, or end-user examines different aspects of low-code and automation in the enterprise, clarifying both value and barriers through personal experiences and insights. With contributions from: Dr. George Westerman, MIT - Neil Ward-Dutton, IDC - Lakshmi N, Tata Consultancy Services - Sidney Fernandes & Alice Wei, University of South Florida - Lisa Heneghan, KPMG - Chris Skinner, FinTech expert - John R. Rymer, Forrester

(Emeritus) - Isaac Sacolick, StarCIO - Darren Blake, Bexley Neighbourhood Care - Rob Galbraith, InsureTech expert - Ron Tolido, Capgemini - Michael Beckley, Appian All proceeds from the sale of this book will be donated to Black Girls Code, an organization providing young girls of color opportunities to learn in-demand skills in technology and computer programming. Software Development From A to Z A Deep Dive into all the Roles Involved in the Creation of Software Apress Understand the big picture of the software development process. We use software every day - operating systems, applications, document editing programs, home banking - but have you ever wondered who creates software and how it's created? This book guides you through the entire process, from conception to the finished product with the aid of user-centric design theory and tools. Software Development: From A to Z provides an overview of backend development - from databases to communication protocols including practical programming skills in Java and of frontend development - from HTML and CSS to npm registry and Vue.js framework. You'll review quality assurance engineering, including the theory about different kind of tests and practicing end-to-end testing using Selenium. Dive into the devops world where authors discuss continuous integration and continuous delivery processes along with each topic's associated technologies. You'll then explore insightful product and project management coverage where authors talk about agile, scrum and other processes from their own experience. The topics that are covered do not require a deep knowledge of technology in general; anyone possessing basic computer and programming knowledge will be able to complete all the tasks and fully understand the concepts this book aims at delivering. You'll wear the hat of a project manager, product owner, designer, backend, frontend, QA and devops engineer, and find your favorite role. What You'll Learn Understand the processes and roles involved in the creation of software Organize your ideas when building the concept of a new product Experience the work performed by stakeholders and other departments of expertise, their individual challenges, and how to overcome possible threats Improve the ways stakeholders and departments can work with each other Gain ideas on how to improve communication and processes Who This Book Is For Anyone who is on a team that creates software and is curious to learn more about other stakeholders or departments involved. Those interested in a career change and want to learn about how software gets created. Those who want to build technical startups and wonder what roles might be involved in the process. VMware VSphere 6.5 Host Resources Deep Dive Createspace Independent Publishing Platform From the author of the vSphere Clustering Deep Dive series - The VMware vSphere 6.5 Host Resources Deep Dive is a guide to building consistent high-performing ESXi hosts. A book that people can't put down. Written for administrators, architects, consultants, aspiring VCDX-es and people eager to learn more about the elements that control the behavior of CPU, memory, storage and network resources. This book shows that we can fundamentally and materially improve

the systems we're building. We can make the currently running ones consistently faster by deeply understanding and optimizing our systems. The reality is that specifics of the infrastructure matter. Details matter. Especially for distributed platforms which abstract resource layers, such as NSX and vSAN. Knowing your systems inside and out is the only way to be sure you've properly handled those details. It's about having a passion for these details. It's about loving the systems we build. It's about understanding them end-to-end. This book explains the concepts and mechanisms behind the physical resource components and the VMkernel resource schedulers, which enables you to: Optimize your workload for current and future Non-Uniform Memory Access (NUMA) systems. Discover how vSphere Balanced Power Management takes advantage of the CPU Turbo Boost functionality, and why High Performance does not. How the 3-DIMMs per Channel configuration results in a 10-20% performance drop. How TLB works and why it is bad to disable large pages in virtualized environments. Why 3D XPoint is perfect for the vSAN caching tier. What queues are and where they live inside the end-to-end storage data paths. Tune VMkernel components to optimize performance for VXLAN network traffic and NFV environments. Why Intel's Data Plane Development Kit significantly boosts packet processing performance.

SQL Server MVP Deep Dives Simon and Schuster This is not an ordinary SQL Server Book. SQL Server MVP Deep Dives brings together the world's most highly-regarded SQL Server experts to create a masterful collection of tips, techniques, and experience-driven best practices for SQL Server development and administration. These SQL Server MVPs-53 in all-each selected a topic of great interest to them, and in this unique book, they share their knowledge and passion with you. SQL Server MVP Deep Dives is organized into five parts: Design and Architecture, Development, Administration, Performance Tuning and Optimization, and Business Intelligence. Within each part, you'll find a collection of brilliantly concise and focused chapters that take on key topics like mobile data strategies, Dynamic Management Views, or query performance. The range of subjects covered is comprehensive, from database design tips to data profiling strategies for BI. Additionally, the authors of this book have generously donated 100% of their royalties to support War Child International. War Child International is a network of independent organizations, working across the world to help children affected by war. War Child was founded upon a fundamental goal: to advance the cause of peace through investing hope in the lives of children caught up in the horrors of war. War Child works in many different conflict areas around the world, helping hundreds of thousands of children every year. Visit www.warchild.org for more information. 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.

Mastering Non-Functional Requirements Packt Publishing Ltd This book covers the most critical 24 NFRs that are applicable to IT applications and systems. About This Book Explains three stages of nonfunctional requirements, that is, analysis,

architecture, and assessment In-depth knowledge of NFR framework and taxonomy that provides guidance around the modelling phase for the NFRs Coverage of 24 critical and pivotal NFRs, including the analysis, architecture, and assessment. Who This Book Is For The primary audience for this title are the gamut of roles starting from IT consultant to chief architects who are responsible to deliver strategic, tactical, and operational engagements for fortune 100 customers worldwide. Nonfunctional requirements are the key to any software / IT program. They cannot be overlooked or ignored. The book provides a comprehensive approach from analysis, architecture, and measurement of nonfunctional requirements. The book includes considerations for bespoke (Java, .Net, and COTS applications). These are applicable to IT applications from various domains. The book outlines the methodology for capturing the NFRs and also describes a framework that can be leveraged by analysts and architects for tackling NFRs for various engagements. The audience for this book include business analysts, enterprise architects, business architects, solution architects, technical architects/designers, domain/security/integration architects, software developers, support engineers and test engineers, technical project managers, project leads/technical leads/technical project managers, and students from the computer science/IT stream What You Will Learn Learn techniques related to the analysis, architecture, and monitoring of NFRs Understand the various tools, techniques, and processes in order to improve the overall quality of the desired outcomes Embrace the best practices of architecting, metrics, and success factors for NFRs Identify the common pitfalls to be avoided and the patterns to leverage Understand taxonomy and framework for NFRs Learn the design guidelines for architecting applications and systems relating to NFRs Abstract different methodologies to analyze and gather NFRs In Detail Non-functional Requirements are key to any software/IT program and cannot be overlooked or ignored. This book provides a comprehensive approach to the analysis, architecture, and measurement of NFRs. It includes considerations for bespoke Java, .NET, and COTS applications that are applicable to IT applications/systems in different domains. The book outlines the methodology for capturing the NFRs and also describes a framework that can be leveraged by analysts and architects for tackling NFRs for various engagements. This book starts off by explaining the various KPIs, taxonomies, and methods for identifying NFRs. Learn the design guidelines for architecting applications and systems relating to NFRs and design principles to achieve the desired outcome. We will then move on to various key tiers/layers and patterns pertaining to the business, database, and integrating tiers. After this, we will dive deep into the topics pertaining to techniques related to monitoring and measurement of NFRs, such as sizing, analytical modeling, and quality assurance. Lastly, we end the book by describing some pivotal NFRs and checklists for the software quality attributes related to the business, application, data, and infrastructure domains. Style and approach The book takes a pragmatic approach, describing various

techniques related to the analysis of NFRs, the architecture of NFRs, and assessment of NFRs. Cephalox the Cyber Squid Turtleback Max and his robodog, Rivet, seek to rescue Max's father from a giant cyber squid, and meet Lia, princess of an ancient underwater race, along their travels. EERE Wind and Hydropower Technologies Program Technology Review (Deep Dive) for Under Secretaries Johnson and Koonin September 4, 2009 presentation highlighting the Wind and Hydropower Program, addressing program goals and objectives, budgets, technology pathways, breakthroughs, and DOE solutions to market barriers. Redis® Deep Dive Explore Redis - Its Architecture, Data Structures and Modules like Search, JSON, AI, Graph, Timeseries (English Edition) BPB Publications Complete reference guide to Redis KEY FEATURES ● Complete coverage of Redis Modules. ● Best practices, tips and tricks, and expert techniques to scale Redis. ● Troubleshooting solutions to perform real-time faster data processing for client applications. DESCRIPTION This book begins with teaching you to set up your own Redis environment, followed by Redis data structures, their architecture, and use cases. You get to learn the details about Redis Modules such as RedisSearch, RedisJSON, RedisTimeSeries, RedisAI, and RedisGraph with specific business use-case examples. This book makes you a Redis Expert by getting you hands-on with best practices on Redis and some tricks to scale Redis activities. WHAT YOU WILL LEARN ● Redis's advantages over the other NOSQL databases. ● Explore Redis Enterprise and its real gameplay in enterprise applications. ● Learn Redis data structures through practically demonstrated use cases. ● Learn from Industry expert to setup the Redis in production environment. ● Understand how Redis enterprise enhances Redis OSS. WHO THIS BOOK IS FOR This book is ideal for anyone who is interested in understanding the basic concepts of the Redis database. The book will help the IT professionals, Software developers, Technical leads, Architects. Readers should have a working knowledge of database designing, basic programming skills, and an understanding of the latest trends in cloud computing. TABLE OF CONTENTS 1. Introduction to NoSQL World 2. NoSQL database types 3. Are NoSQL databases better than traditional databases? 4. History of Redis 5. Getting started with Redis 6. Setting up Redis 7. Redis Data Structures in details 8. Scaling Redis 9. Modules 10. Redis use cases 11. Redis as database service - enterprise solutions 12. What is new in Redis 6? 13. Appendix A (i) Using Redis-cli (ii) RedisInsight tool (iii) Community helps Deep Dive Watkins Media Limited When your reality shatters, what will you do to put it back together again? Still reeling from the failure of his last project, videogame developer Peter Banuk is working hard to ensure his next game doesn't meet the same fate. He desperately needs a win, not only to save his struggling company, but to justify the time he's spent away from his wife and daughters. So when Peter's tech-genius partner offers him the chance to beta-test a new state-of-the-art virtual reality headset, he jumps at it. But something goes wrong during the trial, and Peter wakes to find himself trapped in an eerily familiar world where his children no

longer exist. As the lines between the real and virtual worlds begin to blur, Peter is forced to reckon with what truly matters to him. But can he escape his virtual prison before he loses his family forever? Docker Deep Dive Zero to Docker in a Single Book! Giving you the confidence you need to take on Docker in the real world, this guide is the ultimate book for learning Docker, brought to you by Docker Captain and leading educator in the container ecosystem.

-- Game Design Deep Dive: Horror CRC Press The Game Design Deep Dive series examines a specific game system or mechanic over the course of the history of the industry. This entry will examine the history and design of the horror genre and elements in video games. The author analyzes early video game examples, including the differences between survival, action-horror, and psychological horror. Thanks to recent hits like Five Night's at Freddy's, Bendy and the Ink Machine, and recent Resident Evil titles, the horror genre has seen a strong resurgence. For this book in the Game Design Deep Dive series, Joshua Bycer will go over the evolution of horror in video games and game design, and what it means to create a terrifying and chilling experience. FEATURES • Written for anyone interested in the horror genre, anyone who wants to understand game design, or anyone simply curious from a historical standpoint • Includes real game examples to highlight the discussed topics and mechanics • Explores the philosophy and aspects of horror that can be applied to any medium • Serves as a perfect companion for someone building their first game or as part of a game design classroom Joshua Bycer is a game design critic with more than eight years of experience critically analyzing game design and the industry itself. In that time, through Game-Wisdom, he has interviewed hundreds of game developers and members of the industry about what it means to design video games. He also strives to raise awareness about the importance of studying game design by giving lectures and presentations. His first book was 20 Essential Games to Study. He continues to work on the Game Design Deep Dive series. Game Design Deep Dive Roguelikes CRC Press Game Design Deep Dive: Roguelikes examines the history and rise of the often-confusing roguelike genre. Despite being more than 30 years old, the roguelike genre remains a mystery to a lot of consumers and developers. Procedural generation, or having the game generate content, has been a cornerstone and point of complexity since its inception. The 2010s saw an explosion of new designs and examples, along with a debate about what a roguelike is. The genre found its way back to mainstream audiences with the award-winning Demon's Souls and Dark Souls. Since then, roguelikes have revolutionized the way we see and design games. Author and game design critic Joshua Bycer explains the differences between the various roguelike designs and give a detailed blueprint showing what makes the best ones work. The first of its kind talking about the roguelike genre Examines the design and methodology of roguelike games and the different variations A high-level discussion and breakdown of procedural and random content generation Joshua Bycer is a game design critic with more than seven years of experience

critically analyzing game design and the industry itself. In that time, through Game-Wisdom, he has interviewed hundreds of game developers and members of the industry about what it means to design video games. He is also a public speaker and presenter at schools and libraries on game design and game development. VMware vSAN 6.7 U1 Deep Dive Independently Published VMware's vSAN has rapidly proven itself in environments ranging from hospitals to oil rigs to e-commerce platforms and is one of the top three players in the hyperconverged space. Along the way, it has matured to offer unsurpassed features for data integrity, availability, and space efficiency. vSAN 6.7 U1 has radically simplified IT operations and supports the transition to hyperconverged infrastructures (HCI). The authors of the vSAN Deep Dive have thoroughly updated their definitive guide to this transformative technology. Writing for vSphere administrators, architects, and consultants, Cormac Hogan, and Duncan Epping explain what vSAN is, how it has evolved, what it now offers, and how to gain maximum value from it. The book offers expert insight into preparation, installation, configuration, policies, provisioning, clusters, architecture, and more. You'll also find practical guidance for using all data services, stretched clusters, and two node configurations. This book is part of the Deep Dive series. Combine this book with the vSphere 6.5 Host Deep Dive, and the vSphere 6.7 Clustering Deep Dive, and you have an in-depth and comprehensive set of books that deliver the information you need to design and administer both vSphere and vSAN in the enterprise. Often referred to in the virtual community as the vSphere Resource kit, the Host Resource Deep Dive zooms in on hardware resources such as CPU and Memory and covers how the vSphere resource scheduler manages these. The vSAN Deep Dive discusses how to leverage local storage devices to create a shared storage platform and the Clustering Deep Dive builds on top of that and zooms in how a group of ESXi hosts work together and provide compute clustering services. Buy all three and become your organizations' private cloud superhero! Docker Deep Dive Harness the full potential of your applications with Docker Packt Publishing Ltd Start from scratch and develop the essential skills needed to create, deploy, and manage cloud-native applications using Docker Key Features Get a solid understanding of Docker and containers Overcome common problems while containerizing an application Master Docker commands needed for creating, deploying, and running applications Book Description Most applications, even the funky cloud-native microservices ones, need high-performance, production-grade infrastructure to run on. Having impeccable knowledge of Docker will help you to thrive in the modern cloud-first world. With this book, you'll gain the skills you need to work with Docker and its containers. The book begins with an introduction to containers and explains its functionality and application in the real world. You'll then get an overview of VMware, Kubernetes, and Docker and learn to install Docker on Windows, Mac, and Linux. Once you've understood the Ops and Dev perspective of Docker, you'll be able to see the big picture and understand what Docker exactly does.

The book then turns its attention to the more technical aspects, guiding you through practical exercises covering Docker engine, Docker images, and Docker containers. You'll learn techniques for containerizing an app, deploying apps with Docker Compose, and managing cloud-native applications with Swarm. You'll also build Docker networks and Docker overlay networks and handle applications that write persistent data. Finally, you'll deploy apps with Docker stacks and secure your Docker environment. By the end of this book, you'll be well-versed in Docker and containers and have developed the skills to create, deploy, and run applications on the cloud. What you will learn

Discover how to pull images into Docker host's local registry
 Find out how to containerize an app
 Build and test a Docker overlay network in the swarm mode
 Use Docker compose to deploy and manage multi-container applications
 Securely share sensitive data with containers and Swarm services

Who this book is for
 Whether you are a beginner or an experienced developer looking to utilize Docker to develop and operate cloud-native microservices apps, this book is for you. Anyone who wants to learn Docker orchestration, networking, imaging, and security will also find it useful. No prior knowledge of Docker is necessary.

Dynamics CRM Deep Dive
 Security Crm Accelerators A deep dive into all aspects of security related to the Microsoft Dynamics CRM application and its related components
 Database Internals A Deep Dive into How Distributed Data Systems Work O'Reilly Media
 When it comes to choosing, using, and maintaining a database, understanding its internals is essential. But with so many distributed databases and tools available today, it's often difficult to understand what each one offers and how they differ. With this practical guide, Alex Petrov guides developers through the concepts behind modern database and storage engine internals. Throughout the book, you'll explore relevant material gleaned from numerous books, papers, blog posts, and the source code of several open source databases. These resources are listed at the end of parts one and two. You'll discover that the most significant distinctions among many modern databases reside in subsystems that determine how storage is organized and how data is distributed. This book examines:

- Storage engines: Explore storage classification and taxonomy, and dive into B-Tree-based and immutable Log Structured storage engines, with differences and use-cases for each
- Storage building blocks: Learn how database files are organized to build efficient storage, using auxiliary data structures such as Page Cache, Buffer Pool and Write-Ahead Log
- Distributed systems: Learn step-by-step how nodes and processes connect and build complex communication patterns
- Database clusters: Which consistency models are commonly used by modern databases and how distributed storage systems achieve consistency

Patient Safety Organization Deep Dive "ECRI Institute PSO has developed this Self-Assessment questionnaire (SAQ) to assist organizations in identifying risk management issues that must be addressed with their health IT system projects." -- p. 1. Deep Dive The Proven Method for Building Strategy, Focusing Your Resources, and

Taking Smart Action Greenleaf Book Group Get competitive by learning to think strategically. The inability to set good strategy can sink a company; and a leader's career. A recent Wall Street Journal study revealed that the most sought-after executive skill is strategic thinking, but only three out of ten managers have this skill set. Horwath explains the three keys to strategic thinking, breaks them down into simple, attainable skills, and gives you practical tools to apply them every day, providing managers with a clear path to mastery of the three disciplines: 1. Acumen; generate critical insights through a step-by-step evaluation of your business and its environment 2. Allocation; focus your limited resources through strategic trade-offs 3. Action; implement a system to guarantee effective execution of strategy at all levels of your organization Based on new research with senior executives from 150 companies and the author's experience as a thought-leading strategist, Deep Dive is the first book to focus on the most important level of strategy; you. Armed with this knowledge and dozens of effective tools, you can become a truly strategic leader for your organization.--Rich Horwath is the president of the Strategic Thinking Institute, a former chief strategy officer, and professor of strategy at the Lake Forest Graduate School of Management. As a thought-leading strategist, he has worked with such giants as Adidas, Amgen, and Pfizer. He is the author of four books and more than fifty articles on strategic thinking and has been profiled in business publications around the world, including Investor's Business Daily.

React Deep Dive Independently Published React has taken Frontend Development by storm over the past couple of years, unlike any other library before it. Today there are hardly any metrics where React does not take the top spot: downloads, popularity, usability. With "React Deep Dive" you will take a deep look into developing modern Frontend applications with the help of React. Not only will you learn how react works, but you will also look into what makes React so special and what the creators of React were thinking when creating the library. You will also learn why React is a more descriptive approach to Frontend Development, and how it has turned previous approaches on their head. This book covers all the important topics for developing applications using React, and is aimed at both: those who are just getting started with React, and those who are looking to deepen their understanding. Dive Into Systems A Gentle Introduction to Computer Systems No Starch Press Dive into Systems is a vivid introduction to computer organization, architecture, and operating systems that is already being used as a classroom textbook at more than 25 universities. This textbook is a crash course in the major hardware and software components of a modern computer system. Designed for use in a wide range of introductory-level computer science classes, it guides readers through the vertical slice of a computer so they can develop an understanding of the machine at various layers of abstraction. Early chapters begin with the basics of the C programming language often used in systems programming. Other topics explore the architecture of modern computers, the inner workings of operating systems, and the assembly languages

that translate human-readable instructions into a binary representation that the computer understands. Later chapters explain how to optimize code for various architectures, how to implement parallel computing with shared memory, and how memory management works in multi-core CPUs. Accessible and easy to follow, the book uses images and hands-on exercise to break down complicated topics, including code examples that can be modified and executed. Into the Deep Science, Technology, and the Quest to Protect the Ocean Millbrook Press Containing 97 percent of Earth's water supply, the ocean plays a huge role in regulating global temperatures, supporting plant and animal life, and contributing to the livelihoods of millions of people. But in spite of all this, the ocean remains drastically unexplored, and the details of its impact on human lives aren't fully understood. Scientists from around the world are realizing that to address issues plaguing the ocean, such as dead zones, coral bleaching, and climate change, we need to better understand this incredible, unique feature of our planet. With a range of impressive, cutting-edge technologies at their disposal, oceanographers have set out to measure, sample, and analyze at every turn. Every day, mysteries about the ocean are being solved, and every day, new questions come to light. The more scientists learn, the better they are able to answer these new questions. What lies in the deep? And who is at the forefront of these exciting discoveries? The scientists and research included in this book shed light on the most pressing issues currently facing oceanographers and point us in the right direction to solving these challenges. Practical Cyber Intelligence How action-based intelligence can be an effective response to incidents Packt Publishing Ltd Your one stop solution to implement a Cyber Defense Intelligence program in to your organisation. Key Features Intelligence processes and procedures for response mechanisms Master F3EAD to drive processes based on intelligence Threat modeling and intelligent frameworks Case studies and how to go about building intelligent teams Book Description Cyber intelligence is the missing link between your cyber defense operation teams, threat intelligence, and IT operations to provide your organization with a full spectrum of defensive capabilities. This book kicks off with the need for cyber intelligence and why it is required in terms of a defensive framework. Moving forward, the book provides a practical explanation of the F3EAD protocol with the help of examples. Furthermore, we learn how to go about threat models and intelligence products/frameworks and apply them to real-life scenarios. Based on the discussion with the prospective author I would also love to explore the induction of a tool to enhance the marketing feature and functionality of the book. By the end of this book, you will be able to boot up an intelligence program in your organization based on the operation and tactical/strategic spheres of Cyber defense intelligence. What you will learn Learn about the Observe-Orient-Decide-Act (OODA) loop and it's applicability to security Understand tactical view of Active defense concepts and their application in today's threat landscape Get acquainted with an operational view of the F3EAD process to drive decision making within an

organization Create a Framework and Capability Maturity Model that integrates inputs and outputs from key functions in an information security organization Understand the idea of communicating with the Potential for Exploitability based on cyber intelligence Who this book is for This book targets incident managers, malware analysts, reverse engineers, digital forensics specialists, and intelligence analysts; experience in, or knowledge of, security operations, incident responses or investigations is desirable so you can make the most of the subjects presented. Big Data Analytics Packt Publishing Ltd A handy reference guide for data analysts and data scientists to help to obtain value from big data analytics using Spark on Hadoop clusters About This Book This book is based on the latest 2.0 version of Apache Spark and 2.7 version of Hadoop integrated with most commonly used tools. Learn all Spark stack components including latest topics such as DataFrames, DataSets, GraphFrames, Structured Streaming, DataFrame based ML Pipelines and SparkR. Integrations with frameworks such as HDFS, YARN and tools such as Jupyter, Zeppelin, NiFi, Mahout, HBase Spark Connector, GraphFrames, H2O and Hivemall. Who This Book Is For Though this book is primarily aimed at data analysts and data scientists, it will also help architects, programmers, and practitioners. Knowledge of either Spark or Hadoop would be beneficial. It is assumed that you have basic programming background in Scala, Python, SQL, or R programming with basic Linux experience. Working experience within big data environments is not mandatory. What You Will Learn Find out and implement the tools and techniques of big data analytics using Spark on Hadoop clusters with wide variety of tools used with Spark and Hadoop Understand all the Hadoop and Spark ecosystem components Get to know all the Spark components: Spark Core, Spark SQL, DataFrames, DataSets, Conventional and Structured Streaming, MLLib, ML Pipelines and Graphx See batch and real-time data analytics using Spark Core, Spark SQL, and Conventional and Structured Streaming Get to grips with data science and machine learning using MLLib, ML Pipelines, H2O, Hivemall, Graphx, SparkR and Hivemall. In Detail Big Data Analytics book aims at providing the fundamentals of Apache Spark and Hadoop. All Spark components - Spark Core, Spark SQL, DataFrames, Data sets, Conventional Streaming, Structured Streaming, MLLib, Graphx and Hadoop core components - HDFS, MapReduce and Yarn are explored in greater depth with implementation examples on Spark + Hadoop clusters. It is moving away from MapReduce to Spark. So, advantages of Spark over MapReduce are explained at great depth to reap benefits of in-memory speeds. DataFrames API, Data Sources API and new Data set API are explained for building Big Data analytical applications. Real-time data analytics using Spark Streaming with Apache Kafka and HBase is covered to help building streaming applications. New Structured streaming concept is explained with an IOT (Internet of Things) use case. Machine learning techniques are covered using MLLib, ML Pipelines and SparkR and Graph Analytics are covered with GraphX and GraphFrames components of Spark. Readers will also get an opportunity to get

started with web based notebooks such as Jupyter, Apache Zeppelin and data flow tool Apache NiFi to analyze and visualize data. Style and approach This step-by-step pragmatic guide will make life easy no matter what your level of experience. You will deep dive into Apache Spark on Hadoop clusters through ample exciting real-life examples. Practical tutorial explains data science in simple terms to help programmers and data analysts get started with Data Science Mastering Swift 5 Deep dive into the latest edition of the Swift programming language, 5th Edition Packt Publishing Ltd Harness the power of the latest edition with this in-depth and comprehensive guide to the Swift language Key FeaturesFifth edition of this bestselling book, improved and updated to cover the latest version of the Swift 5 programming languageGet to grips with popular and modern design techniques to write easy-to-manage Swift codeLearn how to use core Swift features such as concurrency, generics, and copy-on-write in your codeBook Description Over the years, the Mastering Swift book has established itself amongst developers as a popular choice as an in-depth and practical guide to the Swift programming language. The latest edition is fully updated and revised to cover the new version: Swift 5. Inside this book, you'll find the key features of Swift 5 easily explained with complete sets of examples. From the basics of the language to popular features such as concurrency, generics, and memory management, this definitive guide will help you develop your expertise and mastery of the Swift language. Mastering Swift 5, Fifth Edition will give you an in-depth knowledge of some of the most sophisticated elements in Swift development, including protocol extensions, error handling, and closures. It will guide you on how to use and apply them in your own projects. Later, you'll see how to leverage the power of protocol-oriented programming to write flexible and easier-to-manage code. You will also see how to add the copy-on-write feature to your custom value types and how to avoid memory management issues caused by strong reference cycles. What you will learnUnderstand core Swift components, including operators, collections, control flows, and functionsLearn how and when to use classes, structures, and enumerationsUnderstand how to use protocol-oriented design with extensions to write easier-to-manage codeUse design patterns with Swift, to solve commonly occurring design problemsImplement copy-on-write for you custom value types to improve performanceAdd concurrency to your applications using Grand Central Dispatch and Operation QueuesImplement generics to write flexible and reusable codeWho this book is for This book is for developers who want to delve into the newest version of Swift. If you are a developer and learn best by looking at and working with code, then this book is for you. A basic understanding of Apple's tools would be beneficial but not mandatory. All examples should work on the Linux platform as well. Deep C# Dive Into Modern C# I/O Press C# is a well-established language and, with its open-source incarnation it has renewed vigor and a long-term future. It is now possible to treat C# as a single modern language with the ability to work cross-platform. In Deep C# Mike James, who

has programmed in C# since its launch in 2000, provides a "deep dive" into various topics that are important or central to the language at a level that will suit the majority of C# programmers. Not everything will be new to any given reader, but by exploring the motivation behind key concepts, which is so often ignored in the documentation, the intention is to be thought-provoking and to give developers confidence to exploit C#'s wide range of features. The book's introductory chapter looks at the development of C# over two decades to achieve the status of a modern, general-purpose, cross-platform language that still has an edge when it comes to Windows programming. After this the book is split into six sections, each covering specific aspects: Strong Typing & Type Safety Casting & Generics Functions Async Data - LINQ, XML, Regular Expressions Unsafe & Interop The problem with any long-lived language is that it is difficult to look at it with fresh eyes. This book should help you discard any old bad habits you might have and gain a new enthusiasm for C# in its latest, modern incarnation. Mike James is the editor of I-Programmer.info, the online magazine written by programmers for programmers. His career spans several generations of computer technology, but he keeps his skills completely up to date. Having written dozens of books, his recent titles include Programmer's Guide to Kotlin, Second Edition, Programmer's Python, JavaScript Jems, and The Programmer's Guide To Theory. Behind the One-way Mirror A Deep Dive Into the Technology of Corporate Surveillance Trackers are hiding in nearly every corner of today's Internet, which is to say nearly every corner of modern life. The tech companies, data brokers, and advertisers behind this surveillance, and the technology that drives it, are largely invisible to the average user. This paper will focus on corporate "third-party" tracking: the collection of personal information by companies that users don't intend to interact with. It will shed light on the technical methods and business practices behind third-party tracking. For journalists, policy makers, and concerned consumers, we hope this paper will demystify the fundamentals of third-party tracking, explain the scope of the problem, and suggest ways for users and legislation to fight back against the status quo. Deep-Dive Terraform on Azure Automated Delivery and Deployment of Azure Solutions Apress Get started with the foundations of Infrastructure as Code and learn how Terraform can automate the deployment and management of resources on Azure. This book covers all of the software engineering practices related to Terraform and Infrastructure as Code with Azure as a cloud provider. The book starts with an introduction to Infrastructure as Code and covers basic concepts, principles, and tools, followed by an overview of Azure and Terraform that shows you how Terraform can be used to provision and manage Azure resources. You will get started writing multiple Terraform scripts and explore its various concepts. Author Ritesh Modi takes a deep dive into Terraform and teaches you about deployment and multiple resource creation using loops. Writing a reusable script using modules is discussed as well as management and administration of secrets, sensitive data, and passwords within

Terraform code. You will learn to store and version Terraform scripts and know how Terraform is used in Azure DevOps pipelines. And you will write unit and integration tests for Terraform and learn its best practices. The book also highlights and walks through the Terraform Azure Provider and shows you a simple way to create a new Terraform provider. After reading this book, you will be able to write quality Terraform scripts that are secure by design, modular, and reusable in Azure. What Will You Learn Understand implementation within infrastructure and application deployments Provision resources in Azure using Terraform Use unit and integration testing Explore concepts such as local vs remote, importing state, workspaces, and backends Who This Book Is For Software engineers, DevOps professionals, and technology architects F# Deep Dives Simon and Schuster Summary F# Deep Dives presents a collection of real-world F# techniques, each written by expert practitioners. Each chapter presents a new use case where you'll read how the author used F# to solve a complex problem more effectively than would have been possible using a traditional approach. You'll not only see how a specific solution works in a specific domain, you'll also learn how F# developers approach problems, what concepts they use to solve them, and how they integrate F# into existing systems and environments. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology F# is an elegant, cross-platform, functional-first programming language. With F#, developers create consistent and predictable programs that are easier to test and reuse, simpler to parallelize, and less prone to bugs. The language, its tooling, and the functional programming style have proven effective in many application areas like secure financial engines, machine learning algorithms, scientific calculations, collaborative web applications, games, and more. About the Book F# Deep Dives is a selection of real-world F# techniques written by expert practitioners. Each chapter presents an important use case where you'll solve a real programming challenge effectively using F# and the functional-first approach. Not only will you see how a specific solution works in a specific domain, but you'll also learn how functional programmers think about problems, how they solve them, and how they integrate F# into existing systems and environments. Readers should have at least an introductory knowledge of the F# language. What's Inside Numerical computing Data visualization Business logic Domain-specific languages Practical solutions to real problems Information-rich programming, including LINQ and F# type providers Covers F# 3.1 and VS 2013 About the Authors Tomas Petricek contributed to the development of the F# language at Microsoft Research. Phil Trelford is an early adopter of F# and one of its most vocal advocates. They are joined by F# experts Chris Ballard, Keith Battocchi, Colin Bull, Chao-Jen Chen, Yan Cui, Johann Deneux, Kit Eason, Evelina Gabasova, Dmitry Morozov, and Don Syme. Table of Contents Succeeding with functional-first languages in the industry PART 1 INTRODUCTION Calculating cumulative binomial distributions Parsing text-based languages PART 2

DEVELOPING ANALYTICAL COMPONENTS Numerical computing in the financial domain Understanding social networks Integrating stock data into the F# language **PART 3 DEVELOPING COMPLETE SYSTEMS** Developing rich user interfaces using the MVC pattern Asynchronous and agent-based programming Creating games using XNA Building social web applications **PART 4 F# IN THE LARGER CONTEXT** F# in the enterprise Software quality Mastering Blockchain A deep dive into distributed ledgers, consensus protocols, smart contracts, DApps, cryptocurrencies, Ethereum, and more, 3rd Edition Packt Publishing Ltd Mastering Blockchain, Third Edition is the blockchain bible to equip you with extensive knowledge of distributed ledgers, cryptocurrencies, smart contracts, consensus algorithms, cryptography and blockchain platforms such as Ethereum, Bitcoin, and many more. Information Technologies in Environmental Engineering New Trends and Challenges Springer Science & Business Media This monograph contains recent studies in eco-informatics, promising ideas and new challenges in information management for supporting sustainability in companies and other organization. The scope of this book includes sets of solutions which show different stakeholders' viewpoints on sustainability. In individual chapters, authors discuss the role which Environmental Information Systems (EIS) play in the environmental conscious functioning of enterprise. New models, methods and tools supporting sustainability are presented. Emphasis is placed on the innovative approach to eco-friendly organization and coordination of transport, logistics processes and operations management. The information management and decision making in manufacturing and service organizations is highlighted. The scope of this monograph also encompasses topics related to the modeling and monitoring of climate change. Soonish Ten Emerging Technologies That'll Improve and/or Ruin Everything Penguin The instant New York Times bestseller! A Wall Street Journal Best Science Book of the Year! A Popular Science Best Science Book of the Year! From a top scientist and the creator of the hugely popular web comic Saturday Morning Breakfast Cereal, a hilariously illustrated investigation into future technologies -- from how to fling a ship into deep space on the cheap to 3D organ printing What will the world of tomorrow be like? How does progress happen? And why do we not have a lunar colony already? What is the hold-up? In this smart and funny book, celebrated cartoonist Zach Weinersmith and noted researcher Dr. Kelly Weinersmith give us a snapshot of what's coming next -- from robot swarms to nuclear fusion powered-toasters. By weaving their own research, interviews with the scientists who are making these advances happen, and Zach's trademark comics, the Weinersmiths investigate why these technologies are needed, how they would work, and what is standing in their way. New technologies are almost never the work of isolated geniuses with a neat idea. A given future technology may need any number of intermediate technologies to develop first, and many of these critical advances may appear to be irrelevant when they are first discovered. The journey to progress is full of strange detours and blind alleys that tell us so much about the

human mind and the march of civilization. To this end, Soonish investigates ten different emerging fields, from programmable matter to augmented reality, from space elevators to robotic construction, to show us the amazing world we will have, you know, soonish. Soonish is the perfect gift for science lovers for the holidays! Deep Diving An Advanced Guide to Physiology, Procedures and Systems Aqua Quest Publications, Inc. This is the first book to span the depth between traditional sport diving editions and the complex medical/commercial texts. It provides a balanced view of the fascinations and hazards of deep diving through extensive factual development of its technical chapters. Water A Deep Dive of Discovery "Includes 8 stories by authors from around the world!"--Cover. VMware vSphere 6. 7 Clustering Deepdive - Rubrik The VMware vSphere 6.7 Clustering Deep Dive is the long-awaited follow-up to best seller vSphere 5.1 Clustering Deep Dive and zooms in on the critical components of every VMware based infrastructure. It provides the knowledge and expertise needed to create a cloud infrastructure based on the solid foundation of vSphere HA, vSphere DRS, vSphere Storage DRS, Storage I/O Control and Network I/O Control. It explains the concepts and mechanisms behind these features that enables you to make well-educated decisions. The book contains a stretched cluster use case section that contains all necessary settings for creating a fully-functional stretched cluster and reviews all failure scenarios and their effect on the existing workload. This book takes you into the trenches of HA, DRS, Storage DRS, SIOC and NIOC and gives you the tools to understand and implement, e.g., HA admission control policies, DRS resource pools, Datastore Clusters, network resource pools, and resource allocation settings. Each section contains basic design principles that can be used for designing, implementing or improving VMware infrastructures. Combine this book with the vSphere 6.5 Host Resources Deep Dive book, and you have an in-depth and comprehensive set of books that deliver the information you need to design and administer vSphere in the enterprise. Often referred to in the virtual community as the vSphere Resource kit, the Host Resource Deep Dive zooms in on hardware resources such as CPU and Memory and covers how the vSphere 6.5 resource scheduler manages these. The Clustering Deep Dive builds on top of that and zooms in how a group of ESXi hosts work together and provide clustering services. Deep-dive Anti-money Laundering Aml/Cft for Banking & Finance Createspace Independent Publishing Platform Student Courseware - This training manual will be available for purchase prior to attending class. The purpose of this comprehensive course is to teach banking, finance and non-bank financial institution employees the AML/CFT standard body of knowledge. This will allow them to implement and enhance internal controls, policies, procedures and processes within their own institutions and understand the base regulatory bodies that impact the industry. Technical threats, hardened regulations and in-depth audits are now part of the AML/CFT landscape and as the industry evolves to meet these new threats, training has become paramount. This course will ensure you are

prepared to meet the challenge of complying with the evolving regulatory expectations and technical typologies you now face and will face in the future. Additionally, this course will prepare them for numerous technical certification from vendors such as NBI, ACAMS, ICA, ABA and others. Infinite Progress How the Internet and Technology Will End Ignorance, Disease, Poverty, Hunger, and War Greenleaf Book Group For years we've been inundated with bleak forecasts about the future. But in this electrifying new book, author Byron Reese debunks the pessimistic outlook as dangerous, and shows instead how technology will soon create a dramatically better world for every person on earth, beyond anything we have dared to imagine. With the art of a storyteller, Reese synthesizes history, technology, and sociology into an exciting, fast-moving narrative that shows how technological change has had dramatic effects on humanity in the past. He then looks forward at the technological changes we know are coming—from genetics, nanotechnology, robotics, and many other fields—and explores how they will vastly increase wealth, prolong our lifespans, redefine human rights, and alter the social fabric of the world. Reese explains how the Internet, human ingenuity, and technological innovation will help us forever end the five historic plagues of human existence: ignorance, disease, poverty, hunger, and war. With a rational and researched optimism, Reese sees the future not as a world in a downward spiral, but as destined for progress beyond our imaginations. As Reese looks forward, he notes that “we are gaining speed, not winding down. We are blooming, not withering, as we leverage the greatest natural resource on the planet: the human mind.” The future of Earth's inhabitants has never been brighter. If you want to get excited about the future, then this is the book for you.