Build Security Into Devops

SANTOS SHEPPARD

Building Secure and Reliable Systems CRC Press
A single dramatic software failure can cost a company millions of dollars - but can be avoided with simple changes to design and architecture. This new edition of the best-selling industry standard shows you how to create systems that run longer, with fewer failures, and recover better when bad things happen. New coverage includes DevOps, microservices, and cloud-native architecture. Stability antipatterns have grown to include systemic problems in large-scale systems. This is a must-have pragmatic guide to engineering for production systems. If you're a software developer, and you don't want to get alerts every night for the rest of your life, help is here. With a combination of case studies about huge losses - lost revenue, lost reputation, lost time, lost opportunity - and practical, down-to-earth advice that was all gained through painful experience, this book helps you avoid the pitfalls that cost companies millions of dollars in downtime and reputation. Eighty percent of project life-cycle cost is in production, yet few books address this topic. This updated edition deals with the production of today's systems - larger, more complex, and heavily virtualized - and includes information on chaos engineering, the discipline of applying randomness and deliberate stress to reveal systematic problems. Build systems that survive the real world, avoid downtime, implement zero-downtime upgrades and continuous delivery, and make cloud-native applications resilient. Examine ways to architect, design, and build software - particularly distributed systems - that stands up to the typhoon winds of a flash mob, a Slashdotting, or a link on Reddit. Take a hard look at software that failed the test and find ways to make sure your software survives. To skip the pain and get the experience...get this book.
Building Secure Software: How to Avoid Security Problems the Right Way "O'Reilly Media, Inc."
An architect's guide to designing, implementing, and integrating DevOps in the enterprise Key FeaturesDesign a DevOps architecture that is aligned with the overall enterprise architectureDesign systems that are ready for AIOps and make the move toward NoOpsArchitect and implement DevSecOps pipelines, securing the DevOps enterpriseBook Description Digital transformation is the new paradigm in enterprises, but the big question remains: is the enterprise ready for transformation using native technology embedded in Agile/DevOps? With this book, you'll see how to design, implement, and integrate DevOps in the enterprise architecture while keeping the Ops team on board and remaining resilient. The focus of the book is not to introduce the hundreds of different tools that are available for implementing DevOps, but instead to show you how to create a successful DevOps architecture. This book provides an architectural overview of DevOps, AIOps, and DevSecOps – the three domains that drive and accelerate digital transformation. Complete with step-by-step explanations of essential concepts, practical examples, and self-assessment questions, this DevOps book will help you to successfully integrate DevOps into enterprise architecture. You'll learn what AIOps is and what value it can bring to an enterprise. Lastly, you will learn how to integrate security principles such as zero-trust and industry security frameworks into DevOps with

DevSecOps. By the end of this DevOps book, you'll be able to develop robust DevOps architectures, know which toolsets you can use for your DevOps implementation, and have a deeper understanding of next-level DevOps by implementing Site Reliability Engineering (SRE). What you will learnCreate DevOps architecture and integrate it with the enterprise architectureDiscover how DevOps can add value to the quality of IT deliveryExplore strategies to scale DevOps for an enterpriseArchitect SRE for an enterprise as next-level DevOpsUnderstand AIOps and what value it can bring to an enterpriseCreate your AIOps architecture and integrate it into DevOpsCreate your DevSecOps architecture and integrate it with the existing DevOps setupApply zero-trust principles and industry security frameworks to DevOpsWho this book is for This book is for enterprise architects and consultants who want to design DevOps systems for the enterprise. It provides an architectural overview of DevOps, AIOps, and DevSecOps. If you're looking to learn about the implementation of various tools within the DevOps toolchain in detail, this book is not for you.

Productive DevOps BPB Publications

DevOps is a cultural and professional movement that's trying to break these walls. Focused on automation, collaboration, tool sharing and knowledge sharing, DevOps has been revealing that developers and system engineers have a lot to learn from one another. In this book, Danilo Sato will show you how to implement DevOps and Continuous Delivery practices so as to raise your system's deployment frequency at the same time as increasing the production application's stability and robustness. You will learn how to automate a web application's build and deploy phases and the infrastructure management, how to monitor the system deployed to production, how to evolve and migrate an architecture to the cloud and still get to know several other tools that you can use on your company

Next Gen DevOps "O'Reilly Media, Inc."

Protect your organization's security at all levels by introducing the latest strategies for securing DevOps Key Features Integrate security at each layer of the DevOps pipeline Discover security practices to protect your cloud services by detecting fraud and intrusion Explore solutions to infrastructure security using DevOps principles Book Description DevOps has provided speed and quality benefits with continuous development and deployment methods, but it does not guarantee the security of an entire organization. Hands-On Security in DevOps shows you how to adopt DevOps techniques to continuously improve your organization’s security at every level, rather than just focusing on protecting your infrastructure. This guide combines DevOps and security to help you to protect cloud services, and teaches you how to use techniques to integrate security directly in your product. You will learn how to implement security at every layer, such as for the web application, cloud infrastructure, communication, and the delivery pipeline layers. With the help of practical examples, you’ll explore the core security aspects, such as blocking attacks, fraud detection, cloud forensics, and incident response. In the concluding chapters, you will cover topics on extending DevOps security, such as risk assessment, threat modeling, and continuous security. By the end of this book, you will be well-versed in implementing security in all layers of your organization and be confident in monitoring and blocking attacks throughout your cloud services. What you will learn Understand DevSecOps culture and organization Learn security requirements, management, and metrics Secure your architecture design by looking at threat modeling, coding tools and practices Handle most common security issues and explore black and white-box testing tools and practices Work with security monitoring toolkits and online fraud detection rules Explore GDPR and PII handling case studies to understand the DevSecOps lifecycle Who this book is for Hands-On Security in DevOps is for system administrators, security consultants, and DevOps engineers who want to secure their entire organization. Basic understanding of Cloud computing, automation frameworks, and programming is necessary.

Tools and Techniques for Software Development in Large Organizations: Emerging Research and Opportunities Simon and Schuster

Automate core security tasks by embedding security controls and processes early in the DevOps workflow through DevSecOps. You will not only learn the various stages in the DevOps pipeline through examples of solutions developed and deployed using .NET Core, but also go through open source SDKs and toolkits that will help you to incorporate automation, security, and compliance. The book starts with an outline of modern software engineering principles and gives you an overview of DevOps in .NET Core. It further explains automation in DevOps for product development along with security principles to improve product quality. Next, you will learn how to improve your product quality and avoid code issues such as SQL injection prevention, cross-site scripting, and many more. Moving forward, you will go through the steps necessary to make security, compliance, audit, and UX automated to increase the efficiency of your organization. You’ll see demonstrations of the CI phase of DevOps, on-premise and hosted, along with code analysis methods to verify product quality. Finally, you will learn network security in Docker and containers followed by compliance and security standards. After reading DevSecOps for .NET Core, you will be able to understand how automation, security, and compliance works in all the stages of the DevOps pipeline while showcasing real-world examples of solutions developed and deployed using .NET Core 3. What You Will Learn Implement security for the .NET Core runtime for cross-functional workloads Work with code style and review guidelines to improve the security, performance, and maintenance of components Add to DevOps pipelines to scan code for security vulnerabilities Deploy software on a secure infrastructure, on Docker, Kubernetes, and cloud environments Who This Book Is For Software engineers and developers who develop and maintain a secure code repository.

Modern DevOps Practices World Scientific

Discover the foundations of software engineering with this easy and intuitive guide In the newly updated second edition of Beginning Software Engineering, expert programmer and tech educator Rod Stephens delivers an instructive and intuitive introduction to the fundamentals of software engineering. In the book, you’ll learn to create well-constructed software applications that meet the needs of users while developing the practical, hands-on skills needed to build robust, efficient, and reliable software. The author skips the unnecessary jargon and sticks to simple and straightforward English to help you understand the concepts and ideas discussed within. He also offers you real-world tested methods you can apply to any programming language. You’ll also get: Practical tips for preparing for programming job interviews, which often include questions about software engineering practices A no-nonsense guide to requirements gathering, system modeling, design, implementation, testing, and debugging Brand-new coverage of user interface design, algorithms, and programming language choices Beginning Software Engineering doesn’t assume any experience with programming, development, or management. It’s plentiful figures and graphics help to explain the foundational concepts and every chapter offers several case examples, Try It Out, and How It Works explanatory sections. For anyone interested in a new career in software development, or simply curious about the software engineering process, Beginning Software Engineering, Second Edition is the handbook you’ve been waiting for.

Building in Security at Agile Speed No Starch Press

Get the eBook version free when you purchase the paperback version This book explores the synchronized approach of lean thinking, metrics, organizational and cultural changes that an organization must handle to achieve the DevOps goal of enabling faster releases and deployment cycles while improving collaboration between stakeholders, operations, and application development teams. Thus, leading to increased employee satisfaction, customer satisfaction and profitability. While adopting the DevOps software development practices, it is important to have a security-first mindset. The rising complexity of security threats facing enterprises is resulting in a shift to DevSecOps approaches, which integrates security, development and operations. Security breaches have the potential to cause serious reputational and financial damage. The author, Austin Young, explores the basic procedures needed to make sure that security is integrated into the DevOps process from the get-go. What You'll Learn: Understand how DevOps impacts your organization. Achieve optimization and creativity with minimal risk and cost. Automate continuous delivery all through the software development life cycle to eliminate the accumulation of technical debt, manual labor waste, and release bottlenecks. Find the DevOps metrics suitable to your organization and incorporate DevOps to your existing investment and best practices. Mitigate threats with DevSecOps. Establish steps to take to integrate security into the DevOps process. Build a pipeline for DevSecOps approach For the individual: transitioning to a DevOps engineer role And lots more...

Using Docker Apress

DevOps for the Desperate is a hands-on, no-nonsense guide for those who land in a DevOps environment and need to get up and running quickly. This book introduces fundamental concepts software developers need to know to flourish in a modern DevOps environment including infrastructure as code, configuration management, security, containerization and orchestration, monitoring and alerting, and troubleshooting. Readers will follow along with hands-on examples to learn how to tackle common DevOps tasks. The book begins with an exploration of DevOps concepts using Vagrant and Ansible to build systems with repeatable and predictable states, including configuring a host with user-based security. Next up is a crash course on containerization, orchestration, and delivery using Docker, Kubernetes, and a CI/CDpipeline. The book concludes with a primer in monitoring and alerting with tips for troubleshootingcommon host and application issues. You'll learn how to: Use Ansible to manage users and groups, and enforce complex passwords Create a security policy for administrative permissions, and automate a host-based firewall Get started with Docker to containerize applications, use Kubernetes for orchestration, and deploycode using a CI/CD pipeline Build a monitoring stack, investigate common metric patterns, and trigger alerts Troubleshoot and analyze common issues and errors found on hosts

Building in Security at Agile Speed Springer Nature

Can a system be considered truly reliable if it isn't fundamentally secure? Or can it be considered secure if it's unreliable? Security is crucial to the design and operation of scalable systems in production, as it plays an important part in product quality, performance, and availability. In this book, experts from Google share best practices to help your organization design scalable and reliable systems that are fundamentally secure. Two previous O’Reilly books from Google—Site Reliability Engineering and The Site Reliability Workbook—demonstrated how and why a commitment to the entire service lifecycle enables organizations to successfully build, deploy, monitor, and maintain software systems. In this latest guide, the authors offer insights into system design, implementation, and maintenance from practitioners who specialize in security and reliability. They also discuss how building and adopting their recommended best practices requires a culture that’s supportive of such change. You’ll learn about secure and reliable systems through: Design strategies Recommendations for coding, testing, and debugging practices Strategies to prepare for, respond to, and recover from incidents Cultural best practices that help teams across your organization collaborate effectively

Devops in Practice IT Revolution

Winner of the Shingo Publication Award Accelerate your organization to win in the marketplace. How can we apply technology to drive business value? For years, we've been told that the performance of software delivery teams doesn't matter—that it can't provide a competitive advantage to our companies. Through four years of groundbreaking research to include data collected from the State of DevOps reports conducted with Puppet, Dr. Nicole Forsgren, Jez Humble, and Gene Kim set out to find a way to measure software delivery performance—and what drives it—using rigorous statistical methods. This book presents both the findings and the science behind that research, making the information accessible for readers to apply in their own organizations. Readers will discover how to measure the performance of their teams, and what capabilities they should invest in to drive higher performance. This book is ideal for management at every level.

Enterprise DevOps for Architects IGI Global

The Future and FinTech examines the fundamental financial technologies and its growing impact on the Banking, Financial Services and Insurance (BFSI) sectors. With global investment amounting to more than $100 billion in 2020, the proliferation of FinTech has underpinned the direction payments, loans, wealth management, insurance, and cryptocurrencies are heading.This book presents FinTech from an industrial perspective in the context of architecture and its basic building blocks, e.g., Artificial Intelligence (AI), Blockchain, Cloud, Big Data, Internet of Things (IoT), and its connections to real-life applications at work. It provides a detailed guidance on how FinTech digitalizes business operations, improves productivity and efficiency, and optimizes resource management with the help of some new concepts, such as AIOps, MLOps and DevSecOps. Readers will also discover how FinTech Innovations connect BFSI to the rest of the world with growing interests in Open Banking, Banking-as-a-Service (BaaS) and FinTech-as-a-Service (FaaS).To help readers understand how FinTech has unlocked numerous opportunities for tapping into the massive substantial group of customers, this book illustrates the massive changes already underway and provides insights into changes yet to come through practical examples and applications with illustrative figures and summary tables, making this book a handy quick reference for all things of FinTech.Related Link(s)

Beginning Software Engineering Packt Publishing Ltd

Automate security-related tasks in a structured, modular fashion using the best open source automation tool available About This Book Leverage the

agentless, push-based power of Ansible 2 to automate security tasks Learn to write playbooks that apply security to any part of your system This recipe-based guide will teach you to use Ansible 2 for various use cases such as fraud detection, network security, governance, and more Who This Book Is For If you are a system administrator or a DevOps engineer with responsibility for finding loop holes in your system or application, then this book is for you. It's also useful for security consultants looking to automate their infrastructure's security model. What You Will Learn Use Ansible playbooks, roles, modules, and templating to build generic, testable playbooks Manage Linux and Windows hosts remotely in a repeatable and predictable manner See how to perform security patch management, and security hardening with scheduling and automation Set up AWS Lambda for a serverless automated defense Run continuous security scans against your hosts and automatically fix and harden the gaps Extend Ansible to write your custom modules and use them as part of your already existing security automation programs Perform automation security audit checks for applications using Ansible Manage secrets in Ansible using Ansible Vault In Detail Security automation is one of the most interesting skills to have nowadays. Ansible allows you to write automation procedures once and use them across your entire infrastructure. This book will teach you the best way to use Ansible for seemingly complex tasks by using the various building blocks available and creating solutions that are easy to teach others, store for later, perform version control on, and repeat. We'll start by covering various popular modules and writing simple playbooks to showcase those modules. You'll see how this can be applied over a variety of platforms and operating systems, whether they are Windows/Linux bare metal servers or containers on a cloud platform. Once the bare bones automation is in place, you'll learn how to leverage tools such as Ansible Tower or even Jenkins to create scheduled repeatable processes around security patching, security hardening, compliance reports, monitoring of systems, and so on. Moving on, you'll delve into useful security automation techniques and approaches, and learn how to extend Ansible for enhanced security. While on the way, we will tackle topics like how to manage secrets, how to manage all the playbooks that we will create and how to enable collaboration using Ansible Galaxy. In the final stretch, we'll tackle how to extend the modules of Ansible for our use, and do all the previous tasks in a programmatic manner to get even more powerful automation frameworks and rigs. Style and approach This comprehensive guide will teach you to manage Linux and Windows hosts remotely in a repeatable and predictable manner. The book takes an in-depth approach and helps you understand how to set up complicated stacks of software with codified and easy-to-share best practices.

Container Security Packt Publishing Ltd

A collection of best practices and effective implementation recommendations that are proven to work, Secure, Resilient, and Agile Software Development leaves the boring details of software security theory out of the discussion as much as possible to concentrate on practical applied software security for practical people. Written to aid your career as well as your organization, the book shows how to gain skills in secure and resilient software development and related tasks. The book explains how to integrate these development skills into your daily duties, thereby increasing your professional value to your company, your management, your community, and your industry. Secure, Resilient, and Agile Software Development was written for the following professionals: AppSec architects and program managers in information security organizations Enterprise architecture teams with application development focus Scrum teams DevOps teams Product owners and their managers Project managers Application security auditors With a detailed look at Agile and Scrum software development methodologies, this book explains how security controls need to change in light of an entirely new paradigm on how software is developed. It focuses on ways to educate everyone who has a hand in any software development project with appropriate and practical skills to Build Security In. After covering foundational and fundamental principles for secure application design, this book dives into concepts, techniques, and design goals to meet well-understood acceptance criteria on features an application must implement. It also explains how the design sprint is adapted for proper consideration of security as well as defensive programming techniques. The book concludes with a look at white box application analysis and sprint-based activities to improve the security and quality of software under development.

CyberSecurity in a DevOps Environment Springer

Enhance DevOps workflows by integrating the functionalities of Docker, Kubernetes, Spinnaker, Ansible, Terraform, Flux CD, CaaS, and more with the help of practical examples and expert tips Key Features Get up and running with containerization-as-a-service and infrastructure automation in the public cloud Learn container security techniques and secret management with Cloud KMS, Anchore Grype, and Grafeas Kritis Leverage the combination of DevOps, GitOps, and automation to continuously ship a package of software Book DescriptionContainers have entirely changed how developers and end-users see applications as a whole. With this book, you'll learn all about containers, their architecture and benefits, and how to implement them within your development lifecycle. You'll discover how you can transition from the traditional world of virtual machines and adopt modern ways of using DevOps to ship a package of software continuously. Starting with a quick refresher on the core concepts of containers, you'll move on to study the architectural concepts to implement modern ways of application development. You'll cover topics around Docker, Kubernetes, Ansible, Terraform, Packer, and other similar tools that will help you to build a base. As you advance, the book covers the core elements of cloud integration (AWS ECS, GKE, and other CaaS services), continuous integration, and continuous delivery (GitHub actions, Jenkins, and Spinnaker) to help you understand the essence of container management and delivery. The later sections of the book will take you through container pipeline security and GitOps (Flux CD and Terraform). By the end of this DevOps book, you'll have learned best practices for automating your development lifecycle and making the most of containers, infrastructure automation, and CaaS, and be ready to develop applications using modern tools and techniques.What you will learn Become well-versed with AWS ECS, Google Cloud Run, and Knative Discover how to build and manage secure Docker images efficiently Understand continuous integration with Jenkins on Kubernetes and GitHub actions Get to grips with using Spinnaker for continuous deployment/delivery Manage immutable infrastructure on the cloud with Packer, Terraform, and Ansible Explore the world of GitOps with GitHub actions, Terraform, and Flux CD Who this book is for If you are a software engineer, system administrator, or operations engineer looking to step into the world of DevOps within public cloud platforms, this book is for you. Existing DevOps engineers will also find this book useful as it covers best practices, tips, and tricks to implement DevOps with a cloud-native mindset. Although no containerization experience is necessary, a basic understanding of the software development life cycle and delivery will help you get the most out of the book.

Demystifying DevSecOps in AWS Pragmatic Bookshelf

Today's high-speed and rapidly changing development environments demand equally high-speed security practices. Still, achieving security remains a human endeavor, a core part of designing, generating and verifying software. Dr. James Ransome and Brook S.E. Schoenfield have built upon their previous works to explain that security starts with people; ultimately, humans generate software security. People collectively act through a particular and distinct set of methodologies, processes, and technologies that the authors have brought together into a newly designed, holistic, generic software development lifecycle facilitating software security at Agile, DevOps speed. —Eric. S. Yuan, Founder and CEO, Zoom Video Communications, Inc. It is essential that we embrace a mantra that ensures security is baked in throughout any development process. Ransome and Schoenfield leverage their abundance of experience and knowledge to clearly define why and how we need to build this new model around an understanding that the human element is the ultimate key to success. —Jennifer Sunshine Steffens, CEO of IOActive Both practical and strategic, Building in Security at Agile Speed is an invaluable resource for change leaders committed to building secure software solutions in a world characterized by increasing threats and uncertainty. Ransome and Schoenfield brilliantly demonstrate why creating robust software is a result of not only technical, but deeply human elements of agile ways of working. —Jorgen Hesselberg, author of Unlocking Agility and Cofounder of Comparative Agility The proliferation of open source components and distributed software services makes the principles detailed in Building in Security at Agile Speed more relevant than ever. Incorporating the principles and detailed guidance in this book into your SDLC is a must for all software developers and IT organizations. —George K Tsantes, CEO of Cyberphos, former partner at Accenture and Principal at EY Detailing the people, processes, and technical aspects of software security, Building in Security at Agile Speed emphasizes that the people element remains critical because software is developed, managed, and exploited by humans. This book presents a step-by-step process for software security that is relevant to today’s technical, operational, business, and development environments with a focus on what humans can do to control and manage the process in the form of best practices and metrics.

Epic Failures in Devsecops John Wiley & Sons

The overwhelming majority of a software system’s lifespan is spent in use, not in design or implementation. So, why does conventional wisdom insist that software engineers focus primarily on the design and development of large-scale computing systems? In this collection of essays and articles, key members of Google’s Site Reliability Team explain how and why their commitment to the entire lifecycle has enabled the company to successfully build, deploy, monitor, and maintain some of the largest software systems in the world. You’ll learn the principles and practices that enable Google engineers to make systems more scalable, reliable, and efficient—lessons directly applicable to your organization. This book is divided into four sections: Introduction—Learn what site reliability engineering is and why it differs from conventional IT industry practices Principles—Examine the patterns, behaviors, and areas of concern that influence the work of a site reliability engineer (SRE) Practices—Understand the theory and practice of an SRE’s day-to-day work: building and operating large distributed computing systems Management—Explore Google's best practices for training, communication, and meetings that your organization can use

Security Automation with Ansible 2 Packt Publishing Ltd

Get to grips with application security, secure coding, and DevSecOps practices to implement in your development pipeline Key Features Understand security posture management to maintain a resilient operational environment Master DevOps security and blend it with software engineering to create robust security protocols Adopt the left-shift approach to integrate early-stage security in DevSecOps Purchase of the print or Kindle book includes a free PDF eBook Book DescriptionDevSecOps is built on the idea that everyone is responsible for security, with the goal of safely distributing security decisions at speed and scale to those who hold the highest level of context. This practice of integrating security into every stage of the development process helps improve both the security and overall quality of the software. This book will help you get to grips with DevSecOps and show you how to implement it, starting with a brief introduction to DevOps, DevSecOps, and their underlying principles. After understanding the principles, you'll dig deeper into different topics concerning application security and secure coding before learning about the secure development lifecycle and how to perform threat modeling properly. You’ll also explore a range of tools available for these tasks, as well as best practices for developing secure code and embedding security and policy into your application. Finally, you'll look at automation and infrastructure security with a focus on continuous security testing, infrastructure as code (IaC), protecting DevOps tools, and learning about the software supply chain. By the end of this book, you’ll know how to apply application security, safe coding, and DevSecOps practices in your development pipeline to create robust security protocols.What you will learn Find out how DevSecOps unifies security and DevOps, bridging a significant cybersecurity gap Discover how CI/CD pipelines can incorporate security checks for automatic vulnerability detection Understand why threat modeling is indispensable for early vulnerability identification and action Explore chaos engineering tests to monitor how systems perform in chaotic security scenarios Find out how SAST pre-checks code and how DAST finds live-app vulnerabilities during runtime Perform real-time monitoring via observability and its criticality for security management Who this book is for This book is for DevSecOps engineers and application security engineers. Developers, pentesters, and information security analysts will also find plenty of useful information in this book. Prior knowledge of the software development process and programming logic is beneficial, but not required.

Secure, Resilient, and Agile Software Development CRC Press

Nowadays it is impossible to imagine a business without technology as most industries are becoming "smarter" and more tech-driven, ranging from small individual tech initiatives to complete business models with intertwined supply chains and "platform"-based business models. New ways of working, such as agile and DevOps, have been introduced, leading to new risks. These risks come in the form of new challenges for teams working together in a distributed manner, privacy concerns, human autonomy, and cybersecurity concerns. Technology is now integrated into the business discipline and is here to stay leading to the need for a thorough understanding of how to address these risks and all the potential problems that could arise. With the advent of organized crime, such as hacks and denial-of-service attacks, all kinds of malicious actors are infiltrating the digital society in new and unique ways. Systems with poor design, implementation, and configurations are easily taken advantage of. When it comes to integrating business and technology, there needs to be approaches for assuring security against risks that can threaten both businesses and their digital platforms. Strategic Approaches to Digital Platform Security Assurance offers comprehensive design science research approaches to extensively examine risks in digital platforms and offer pragmatic solutions to these concerns and challenges. This book addresses significant problems when transforming an organization embracing API-based platform models, the use of DevOps teams, and issues in technological architectures. Each section

will examine the status quo for business technologies, the current challenges, and core success factors and approaches that have been used. This book is ideal for security analysts, software engineers, computer engineers, executives, managers, IT consultants, business professionals, researchers, academicians, and students who want to gain insight and deeper knowledge of security in digital platforms and gain insight into the most important success factors and approaches utilized by businesses.

Release It! IT Revolution

Learn how to build a proactive cybersecurity culture together with the rest of your C-suite to effectively manage cyber risks Key FeaturesEnable business acceleration by preparing your organization against cyber risksDiscover tips and tricks to manage cyber risks in your organization and build a cyber resilient businessUnpack critical questions for the C-suite to ensure the firm is intentionally building cyber resilienceBook Description With cyberattacks on the rise, it has become essential for C-suite executives and board members to step up and collectively recognize cyber risk as a top priority business risk. However, non-cyber executives find it challenging to understand their role in increasing the business's cyber resilience due to its complex nature and the lack of a clear return on investment. This book demystifies the perception that cybersecurity is a technical problem, drawing parallels between the key responsibilities of the C-suite roles to line up with the mission of the Chief Information Security Officer (CISO). The book equips you with all you need to know about cyber risks to run the business effectively. Each chapter provides a holistic overview of the dynamic priorities of the C-suite (from the CFO to the CIO, COO, CRO, and so on), and unpacks how cybersecurity must be embedded in every business function. The book also contains self-assessment questions, which are a helpful tool in evaluating any major cybersecurity initiatives and/or investment required. With this book, you'll have a deeper appreciation of the various ways all executives can contribute to the organization's cyber program, in close collaboration with the CISO and the security team, and achieve a cyber-resilient, profitable, and sustainable business. What you will learnUnderstand why cybersecurity should matter to the C-suiteExplore how different roles contribute to an organization's securityDiscover how priorities of roles affect an executive's contribution to securityUnderstand financial losses and business impact caused by cyber risksCome to grips with the role of the board of directors in cybersecurity programsLeverage the recipes to build a strong cybersecurity cultureDiscover tips on cyber risk quantification and cyber insuranceDefine a common language that bridges the gap between business and cybersecurityWho this book is for This book is for the C-suite and executives who are not necessarily working in cybersecurity. The guidebook will bridge the gaps between the CISO and the rest of the executives, helping CEOs, CFOs, CIOs, COOs, etc., to understand how they can work together with the CISO and their team to achieve organization-wide cyber resilience for business value preservation and growth.

Building Secure Cars CRC Press

Today's high-speed and rapidly changing development environments demand equally high-speed security practices. Still, achieving security remains a human endeavor, a core part of designing, generating and verifying software. Dr. James Ransome and Brook S.E. Schoenfield have built upon their previous works to explain that security starts with people; ultimately, humans generate software security. People collectively act through a particular and distinct set of methodologies, processes, and technologies that the authors have brought together into a newly designed, holistic, generic software development lifecycle facilitating software security at Agile, DevOps speed. —Eric. S. Yuan, Founder and CEO, Zoom Video Communications, Inc. It is essential that we embrace a mantra that ensures security is baked in throughout any development process. Ransome and Schoenfield leverage their abundance of experience and knowledge to clearly define why and how we need to build this new model around an understanding that the human element is the ultimate key to success. —Jennifer Sunshine Steffens, CEO of IOActive Both practical and strategic, Building in Security at Agile Speed is an invaluable resource for change leaders committed to building secure software solutions in a world characterized by increasing threats and uncertainty. Ransome and Schoenfield brilliantly demonstrate why creating robust software is a result of not only technical, but deeply human elements of agile ways of working. —Jorgen Hesselberg, author of Unlocking Agility and Cofounder of Comparative Agility The proliferation of open source components and distributed software services makes the principles detailed in Building in Security at Agile Speed more relevant than ever. Incorporating the principles and detailed guidance in this book into your SDLC is a must for all software developers and IT organizations. —George K Tsantes, CEO of Cyberphos, former partner at Accenture and Principal at EY Detailing the people, processes, and technical aspects of software security, Building in Security at Agile Speed emphasizes that the people element remains critical because software is developed, managed, and exploited by humans. This book presents a step-by-step process for software security that is relevant to today’s technical, operational, business, and development environments with a focus on what humans can do to control and manage the process in the form of best practices and metrics.