The Infosec Handbook An Introduction To Information Security

Learn the fundamental aspects of the business statistics, data mining, and machine learning techniques required to understand the huge amount of data generated by your organization. This book explains practical business analytics through examples, covers the steps involved in using it correctly, and shows you the context in which a particular technique does not make sense. Further, Practical Business Analytics using R helps you understand specific issues faced by organizations and how the solutions to these issues can be facilitated by business analytics. This book will discuss and explore the following through examples and case studies: An introduction to R: data management and R functions The architecture, framework, and life cycle of a business analytics project Descriptive analytics using R: descriptive statistics and data cleaning Data mining: classification, association rules, and clustering Predictive analytics: simple regression, multiple regression, and logistic regression This book includes case studies on important business analytic techniques, such as classification, association, clustering, and regression. The R language is the statistical tool used to demonstrate the concepts throughout the book. What You Will Learn • Write R programs to handle data • Build analytical models and draw useful inferences from them • Discover the basic concepts of data mining and machine learning • Carry out predictive modeling • Define a business issue as an analytical problem Who This Book Is For Beginners who want to understand and learn the fundamentals of analytics using R. Students, managers, executives, strategy and planning professionals, software professionals, and BI/DW professionals.

This book addresses the topics related to artificial intelligence, the Internet of Things, blockchain technology, and machine learning. It brings together researchers, developers, practitioners, and users interested in cybersecurity and forensics. The first objective is to learn and understand the need for and impact of advanced cybersecurity and forensics and its implementation with multiple smart computational technologies. This objective answers why and how cybersecurity and forensics have evolved as one of the most promising and widely-accepted technologies globally and has widely-accepted applications. The second objective is to learn how to use advanced cybersecurity and forensics practices to answer computational problems where confidentiality, integrity, and availability are essential aspects to handle and answer. This book is structured in such a way so that the field of study is relevant to each reader's major or interests. It aims to help each reader see the relevance of cybersecurity and forensics to their career or interests. This book intends to encourage researchers to develop novel theories to enrich their scholarly knowledge to achieve sustainable development and foster sustainability. Readers will gain valuable knowledge and insights about smart computing technologies using this exciting book. This book: • Includes detailed applications of cybersecurity and forensics for real-life problems • Addresses the challenges and solutions related to implementing cybersecurity in multiple domains of smart computational technologies • Includes the latest trends and areas of research in cybersecurity and forensics • Offers both quantitative and qualitative assessments of the topics Includes case studies that will be helpful for the researchers Prof. Keshav Kaushik is Assistant Professor in the Department of Systemics, School of Computer Science at the University of Petroleum and Energy Studies, Dehradun, India. Dr. Shubham Tayal is Assistant Professor at SR University, Warangal, India. Dr. Akashdeep Bhardwaj is Professor (Cyber Security & Digital Forensics) at the University of Petroleum & Energy Studies (UPES), Dehradun, India. Dr. Manoj Kumar is Assistant Professor (SG) (SoCS) at the University of Petroleum and Energy Studies, Dehradun, India.

Dramatically improve your cybersecurity using AI and machine learning In Intelligent Security Systems, distinguished professor and computer scientist Dr. Leon Reznik delivers an expert synthesis of artificial intelligence, machine learning and data science techniques, applied to computer security to assist readers in hardening their computer systems against threats. Emphasizing practical and actionable strategies that can be immediately implemented by industry professionals and computer device's owners, the author explains how to install and harden firewalls, intrusion detection systems, attack recognition tools, and malware protection systems. He also walks the reader through how to recognize and counter common hacking activities. The textbook bridges the gap between cybersecurity education and new data science programs, discussing how cutting-edge artificial intelligence and machine learning techniques can work for and against cybersecurity efforts. Intelligent Security Systems includes supplementary resources, like classroom presentation slides, sample review, test and exam questions, practice exercises to make the material contained within even more practical and useful. The book also offers: A thorough introduction to computer security, artificial intelligence, and machine learning, including basic definitions and concepts like threats, vulnerabilities, risks, attacks, protection, and tools An exploration of firewall design and implementation, including firewall types and models, typical designs and configurations, and their limitations and problems Discussions of intrusion detection systems (IDS), including architecture topologies, components, and operational ranges, classification approaches, and machine learning techniques in IDS design A treatment of malware and vulnerabilities detection and protection, including malware classes, history, and development trends Perfect for undergraduate and graduate students in computer security, computer science and engineering, Intelligent Security Systems will also earn a place in the libraries of students and educators in information technology and data science, as well as professionals working in those fields.

The InfoSec Handbook offers the reader an organized layout of information that is easily read and understood. Allowing beginners to enter the field and understand the key concepts and ideas, while still keeping the experienced readers updated on topics and concepts. It is intended mainly for beginners to the field of information security, written in a way that makes it easy for them to understand the detailed content of the book. The book offers a practical and simple view of the security practices while still offering somewhat technical and detailed information relating to security. It helps the reader build a strong foundation of information, allowing them to move forward from the book with a larger knowledge base. Security is a constantly growing concern that everyone must deal with. Whether it's an average computer user or a highly skilled computer user, they are always confronted with different security risks. These risks range in danger and should always be dealt with accordingly. Unfortunately, not everyone is aware of the dangers or how to prevent them and this is where most of the issues arise in information technology (IT). When computer users do not take security into account many issues can arise from that like system compromises or loss of data and information. This is an obvious issue that is present with all computer users. This book is intended to educate the average and experienced user of what kinds of different security practices and standards exist. It will also cover how to manage security software and updates in order to be as protected as possible from all of the threats that they face.

Develop a threat model and incident response strategy to build a strong information security framework

How action-based intelligence can be an effective response to incidents

Bridging the Gap between Security and the Business

A Comprehensive Handbook

An Introduction to Information Security

How Artificial Intelligence, Machine Learning and Data Science Work For and Against Computer Security

Object-Oriented Python

This book is for cybersecurity leaders across all industries and organizations. It is intended to bridge the gap between the data center and the board room. This book e multitude of communication challenges that CISOs are faced with every day and provides practical tools to identify your audience, tailor your message and master the

communicating. Poor communication is one of the top reasons that CISOs fail in their roles. By taking the step to work on your communication and soft skills (the hand), you will hopefully never join their ranks. This is not a "communication theory" book. It provides just enough practical skills and techniques for security leaders done. Learn fundamental communication skills and how to apply them to day-to-day challenges like communicating with your peers, your team, business leaders and directors. Learn how to produce meaningful metrics and communicate before, during and after an incident. Regardless of your role in Tech, you will find something somewhere along the way in this book.

Network and System Security provides focused coverage of network and system security technologies. It explores practical solutions to a wide range of network a issues. Chapters are authored by leading experts in the field and address the immediate and long-term challenges in the authors' respective areas of expertise. Cov building a secure organization, cryptography, system intrusion, UNIX and Linux security, Internet security, intranet security, LAN security; wireless network security, security, RFID security, and more. Chapters contributed by leaders in the field covering foundational and practical aspects of system and network security, providing technical expertise not found elsewhere Comprehensive and updated coverage of the subject area allows the reader to put current technologies to work Presents problem solving techniques, enhancing the reader's grasp of the material and ability to implement practical solutions

Rapid technological advancement has given rise to new ethical dilemmas and security threats, while the development of appropriate ethical codes and security mea pace, which makes the education of computer users and professionals crucial. The Encyclopedia of Information Ethics and Security is an original, comprehensive refe ethical and security issues relating to the latest technologies. Covering a wide range of themes, this valuable reference tool includes topics such as computer crime privacy, surveillance, intellectual property and education. This encyclopedia is a useful tool for students, academics, and professionals.

All the Knowledge You Need to Build Cybersecurity Programs and Policies That Work Clearly presents best practices, governance frameworks, and key standards Inc coverage of healthcare, finance, and PCI DSS compliance An essential and invaluable guide for leaders, managers, and technical professionals Today, cyberattacks ca organizations at risk. Cybersecurity can no longer be delegated to specialists: success requires everyone to work together, from leaders on down. Developing Cyber and Policies offers start-to-finish guidance for establishing effective cybersecurity in any organization. Drawing on more than 20 years of real-world experience, On realistic best practices for defining policy and governance, ensuring compliance, and collaborating to harden the entire organization. First, Santos shows how to dev cybersecurity policies and an effective framework for governing them. Next, he addresses risk management, asset management, and data loss prevention, showing functions from HR to physical security. You'll discover best practices for securing communications, operations, and access; acquiring, developing, and maintaining te responding to incidents. Santos concludes with detailed coverage of compliance in finance and healthcare, the crucial Payment Card Industry Data Security Standard, and the NIST Cybersecurity Framework. Whatever your current responsibilities, this guide will help you plan, manage, and lead cybersecurity–and safeguard that matter. Learn How To · Establish cybersecurity policies and governance that serve your organization's needs · Integrate cybersecurity program components int framework for action · Assess, prioritize, and manage security risk throughout the organization · Manage assets and prevent data loss · Work with HR to address h cybersecurity · Harden your facilities and physical environment · Design effective policies for securing communications, operations, and access · Strengthen security information systems lifecycle · Plan for quick, effective incident response and ensure business continuity · Comply with rigorous regulations in finance and healthca compliance to safely process payments · Explore and apply the guidance provided by the NIST Cybersecurity Framework

Introduction to Information Security

Network and System Security

Computer Forensics InfoSec Pro Guide

The History of Information Security

Business Continuity and Disaster Recovery for InfoSec Managers

The DevOps Handbook

An Introduction to Computer Security

Security Risk Management is the definitive guide for building or running an information security risk management program. This book teaches practical techniques that will be used on a daily basis, while also explaining the fundamentals so students understand the rationale behind these practices. It explains how to perform risk assessments for new IT projects, how to efficiently manage daily risk activities, and how to qualify the current risk level for presentation to executive level management. While other books focus entirely on risk analysis methods, this is the first comprehensive text for managing security risks. This book will help you to break free from the so-called best practices argument by articulating risk exposures in business terms. It includes case studies to provide hands-on experience using risk assessment tools to calculate the costs and benefits of any security investment. It explores each phase of the risk management lifecycle, focusing on policies and assessment processes that should be used to properly assess and mitigate risk. It also presents a roadmap for designing and implementing a security risk management program. This book will be a valuable resource for CISOs, security managers, IT managers, security consultants, IT auditors, security analysts, and students enrolled in information security/assurance college programs. Named a 2011 Best Governance and ISMS Book by InfoSec Reviews Includes case studies to provide hands-on experience using risk assessment tools to calculate the costs and benefits of any security investment Explores each phase of the risk management

lifecycle, focusing on policies and assessment processes that should be used to properly assess and mitigate risk Presents a roadmap for designing and implementing a security risk management program This open access book provides the first comprehensive collection of papers that provide an integrative view on cybersecurity. It discusses theories, problems and solutions on the relevant ethical issues involved. This work is sorely needed in a world where cybersecurity has become indispensable to protect trust and confidence in the digital infrastructure whilst respecting fundamental values like equality, fairness, freedom, or privacy. The book has a strong practical focus as it includes case studies outlining ethical issues in cybersecurity and presenting guidelines and other measures to tackle those issues. It is thus not only relevant for academics but also for practitioners in cybersecurity such as providers of security software, governmental CERTs or Chief Security Officers in companies.

"This book is the best source for the most current, relevant, cutting edge research in the field of industrial informatics focusing on different methodologies of information technologies to enhance industrial fabrication, intelligence, and manufacturing processes"--Provided by publisher.

Most introductory texts provide a technology-based survey of methods and techniques that leaves the reader without a clear understanding of the interrelationships between methods and techniques. By providing a strategy-based introduction, the reader is given a clear understanding of how to provide overlapping defenses for critical information. This understanding provides a basis for engineering and risk-management decisions in the defense of information. Information security is a rapidly growing field, with a projected need for thousands of professionals within the next decade in the government sector alone. It is also a field that has changed in the last decade from a largely theory-based discipline to an experience-based discipline. This shift in the field has left several of the classic texts with a strongly dated feel. Provides a broad introduction to the methods and techniques in the field of information security Offers a strategy-based view of these tools and techniques, facilitating selection of overlapping methods for in-depth defense of information Provides very current view of the emerging standards of practice in information security

Advanced Smart Computing Technologies in Cybersecurity and Forensics
Understanding the Fundamentals of InfoSec in Theory and Practice
The Handbook of Information Security for Advanced Neuroprosthetics
97 Things Every Information Security Professional Should Know
The Nist Handbook
Innovations and Solutions
Introduction to Computer Security

Security Smarts for the Self-Guided IT Professional Find out how to excel in the field of computer forensics investigations. Learn what it takes to transition from an IT professional to a computer forensic examiner in the private sector. Written by a Certified Information Systems Security Professional, Computer Forensics: InfoSec Pro Guide is filled with real-world case studies that demonstrate the concepts covered in the book. You'll learn how to set up a forensics lab, select hardware and software, choose forensic imaging procedures, test your tools, capture evidence from different sources, follow a sound investigative process, safely store evidence, and verify your findings. Best practices for documenting your results, preparing reports, and presenting evidence in court are also covered in this detailed resource. Computer Forensics: InfoSec Pro Guide features: Lingo—Common security terms defined so that you're in the know on the job IMHO—Frank and relevant opinions based on the author's years of industry experience Budget Note—Tips for getting security technologies and processes into your organization's budget In Actual Practice—Exceptions to the rules of security explained in real-world contexts Your Plan—Customizable checklists you can use on the job now Into Action—Tips on how, why, and when to apply new skills and techniques at work

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.

The InfoSec HandbookAn Introduction to Information SecurityApress

Presents information on how to analyze risks to your networks and the steps needed to select and deploy the appropriate countermeasures to reduce your exposure to physical and network threats. Also imparts the skills and knowledge needed to identify and counter some fundamental security risks and requirements, including Internet security threats and measures (audit trails IP sniffing/spoofing etc.) and how to implement security policies and procedures. In addition, this book covers security and network design with respect to particular vulnerabilities and threats. It also covers risk assessment and mitigation and auditing and testing of security systems as well as application standards and technologies required to build secure VPNs, configure client software and server operating systems, IPsec-enabled routers, firewalls and SSL clients. This comprehensive book will provide essential knowledge and skills needed to select, design and deploy a public key infrastructure (PKI) to secure existing and future applications. * Chapters contributed by leaders in the field cover theory and practice of computer security technology, allowing the reader to develop a new level of technical expertise * Comprehensive and up-to-date coverage of security issues facilitates learning and allows the reader to remain current and fully informed from multiple viewpoints * Presents methods of analysis and problem-solving techniques, enhancing the reader's grasp of the material and ability to implement practical solutions

Foundations of Information Security

The InfoSec Handbook

Intelligent Security Systems

A Practical Introduction to Modern Encryption

Building an Information Security Risk Management Program from the Ground Up

Practical Cyber Intelligence

A Strategic-Based Approach

How does one ensure information security for a computer that is entangled with the structures and processes of a human brain – and for the human mind that is interconnected with such a device? The need to provide information security for neuroprosthetic devices grows more pressing as increasing numbers of people utilize therapeutic technologies such as cochlear implants, retinal prostheses, robotic prosthetic limbs, and deep brain stimulation devices. Moreover, emerging neuroprosthetic technologies for human enhancement are expected to increasingly transform their human users' sensory, motor, and cognitive capacities in ways that generate new 'posthumanized' sociotechnological realities. In this context, it is essential not only to ensure the information security of such neuroprostheses themselves but – more importantly – to ensure the psychological and physical health, autonomy, and personal identity of the human beings whose cognitive processes are inextricably linked with such devices. InfoSec practitioners must not only guard against threats to the confidentiality and integrity of data stored within a neuroprosthetic device's internal memory; they must also guard against threats to the confidentiality and integrity of thoughts, memories, and desires existing within the mind the of the device's human host. This second edition of The Handbook of Information Security for Advanced Neuroprosthetics updates the previous edition's comprehensive investigation of these issues from both theoretical and practical perspectives. It provides an introduction to the current state of neuroprosthetics and expected future trends in the field, along with an introduction to fundamental principles of information security and an analysis of how they must be re-envisioned to address the unique challenges posed by advanced neuroprosthetics. A two-dimensional cognitional security framework is presented whose security goals are designed to protect a device's human host in his or her roles as a sapient metavolitional agent, embodied embedded organism, and social and economic actor. Practical consideration is given to information security responsibilities and roles within an organizational context and to the application of preventive, detective, and corrective or compensating security controls to neuroprosthetic devices, their host-device systems, and the larger supersystems in which they operate. Finally, it is shown that while implantable neuroprostheses create new kinds of security vulnerabilities and risks, they may also serve to enhance the information security of some types of human hosts (such as those experiencing certain neurological conditions).

Penetration testers simulate cyber attacks to find security weaknesses in networks, operating systems, and applications. Information security experts worldwide use penetration techniques to evaluate enterprise defenses. In Penetration Testing, security expert, researcher, and trainer Georgia Weidman introduces you to the core skills and techniques that every pentester needs. Using a virtual machine–based lab that includes Kali Linux and vulnerable operating systems, you'll run through a series of practical lessons with tools like Wireshark, Nmap, and Burp Suite. As you follow along with the labs and launch attacks, you'll experience the key stages of an actual assessment—including information gathering, finding exploitable vulnerabilities, gaining access to systems, post exploitation, and more. Learn how to: –Crack passwords and wireless network keys with brute-forcing and wordlists –Test web applications for vulnerabilities –Use the Metasploit Framework to launch exploits and write your own Metasploit modules –Automate social-engineering attacks –Bypass antivirus software –Turn access to one machine into total control of the enterprise in the post exploitation phase You'll even explore writing your own exploits. Then it's on to mobile hacking—Weidman's particular area of research—with her tool, the Smartphone Pentest Framework. With its collection of hands-on lessons that cover key tools and strategies, Penetration Testing is the introduction that every aspiring hacker needs.

Information Security is usually achieved through a mix of technical, organizational and legal measures. These may include the application of cryptography, the hierarchical modeling of organizations in order to assure confidentiality, or the distribution of accountability and responsibility by law, among interested parties. The history of Information Security reaches back to ancient times and starts with the emergence of bureaucracy in administration and warfare. Some aspects, such as the interception of encrypted messages during World War II, have attracted huge attention, whereas other aspects have remained largely

uncovered. There has never been any effort to write a comprehensive history. This is most unfortunate, because Information Security should be perceived as a set of communicating vessels, where technical innovations can make existing legal or organisational frame-works obsolete and a breakdown of political authority may cause an exclusive reliance on technical means. This book is intended as a first field-survey. It consists of twenty-eight contributions, written by experts in such diverse fields as computer science, law, or history and political science, dealing with episodes, organisations and technical developments that may considered to be exemplary or have played a key role in the development of this field. These include: the emergence of cryptology as a discipline during the Renaissance, the Black Chambers in 18th century Europe, the breaking of German military codes during World War II, the histories of the NSA and its Soviet counterparts and contemporary cryptology. Other subjects are: computer security standards, viruses and worms on the Internet, computer transparency and free software, computer crime, export regulations for encryption software and the privacy debate. - Interdisciplinary coverage of the history Information Security - Written by top experts in law, history, computer and information science - First comprehensive work in Information Security

Every year, nearly one in five businesses suffers a major disruption to its data or voice networks or communications systems. Since 9/11 it has become increasingly important for companies to implement a plan for disaster recovery. This comprehensive book addresses the operational and day-to-day security management requirements of business stability and disaster recovery planning specifically tailored for the needs and requirements of an Information Security Officer. This book has been written by battle tested security consultants who have based all the material, processes and problem- solving on real-world planning and recovery events in enterprise environments world wide. John has over 25 years experience in the IT and security sector. He is an often sought management consultant for large enterprise and is currently a member of the Federal Communication Commission's Homeland Security Network Reliability and Interoperability Council Focus Group on Cybersecurity, working in the Voice over Internet Protocol workgroup. James has over 30 years experience in security operations and technology assessment as a corporate security executive and positions within the intelligence, DoD, and federal law enforcement communities. He has a Ph.D. in information systems specializing in information security and is a member of Upsilon Pi Epsilon (UPE), the International Honor Society for the Computing and Information Disciplines. He is currently an Independent Consultant. · Provides critical strategies for maintaining basic business functions when and if systems are shut down · Establishes up to date methods and techniques for maintaining second site back up and recovery · Gives managers viable and efficient processes that meet new government rules for saving and protecting data in the event of disasters

Developing Cybersecurity Programs and Policies
The Ethics of Cybersecurity
Handbook of Research on Industrial Informatics and Manufacturing Intelligence: Innovations and Solutions
Information Security Management Handbook, Fifth Edition
Information Security Handbook
Security Monitoring and Incident Response Master Plan
A Practical Guide to TPM 2.0

Whether you're searching for new or additional opportunities, information security can be vast and overwhelming. In this practical guide, author Christina Morillo introduces technical knowledge from a diverse range of experts in the infosec field. Through 97 concise and useful tips, you'll learn how to expand your skills and solve common issues by working through everyday security problems. You'll also receive valuable guidance from professionals on how to navigate your career within this industry. How do you get buy-in from the C-suite for your security program? How do you establish an incident and disaster response plan? This practical book takes you through actionable advice on a wide variety of infosec topics, including thought-provoking questions that drive the direction of the field. Continuously Learn to Protect Tomorrow's Technology - Alyssa Columbus Fight in Cyber Like the Military Fights in the Physical - Andrew Harris Keep People at the Center of Your Work - Camille Stewart Infosec Professionals Need to Know Operational Resilience - Ann Johnson Taking Control of Your Own Journey - Antoine Middleton Security, Privacy, and Messy Data Webs: Taking Back Control in Third-Party Environments - Ben Brook Every Information Security Problem Boils Down to One Thing - Ben Smith Focus on the WHAT and the Why First, Not the Tool - Christina Morillo

This practical guide to modern encryption breaks down the fundamental mathematical concepts at the heart of cryptography without shying away from meaty discussions of how they work. You'll learn about authenticated encryption, secure randomness, hash functions, block ciphers, and public-key techniques such as RSA and elliptic curve cryptography. You'll also learn: - Key concepts in cryptography, such as computational security, attacker models, and forward secrecy - The strengths and limitations of the TLS protocol behind HTTPS secure websites - Quantum computation and post-quantum cryptography - About various vulnerabilities by examining numerous code examples and use cases - How to choose the best algorithm or protocol and ask vendors the right questions Each chapter includes a discussion of common implementation mistakes using real-world examples and details what could go wrong and how to avoid these pitfalls. Whether you're a seasoned practitioner or a beginner looking to dive into the field, Serious Cryptography will provide a complete survey of modern encryption and its applications.

This handbook covers the ten domains of the Information Security Common Body of Knowledge. It is designed to empower the security professional and the chief information officer with information such that they can do their duty, protect the information assets of their organizations.

Discover the latest trends, developments and technology in information security today with Whitman/Mattord's market-leading PRINCIPLES OF INFORMATION SECURITY, 7th Edition. Designed specifically to meet the needs of those studying information systems, this edition's balanced focus addresses all aspects of information security, rather than simply offering a technical control perspective. This overview explores important terms and examines what is needed to manage an effective information security program. A new module details incident response and detection strategies. In addition, current, relevant updates highlight the latest practices in security operations as well as legislative issues, information management toolsets

and digital forensics. Coverage of the most recent policies and guidelines that correspond to federal and international standards further prepare you for success both in information systems and as a business decision-maker. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Computer and Information Security Handbook

Security Risk Management

Getting Started with Networking, Scripting, and Security in Kali

Principles of Information Security

Secrets and Lies

How to Create World-Class Agility, Reliability, and Security in Technology Organizations

Linux Basics for Hackers

As part of the Syngress Basics series, The Basics of Information Security provides you with fundamental knowledge of information security in both theoretical and practical aspects. Author Jason Andress gives you the basic knowledge needed to understand the key concepts of confidentiality, integrity, and availability, and then dives into practical applications of these ideas in the areas of operational, physical, network, application, and operating system security. The Basics of Information Security gives you clear-non-technical explanations of how infosec works and how to apply these principles whether you're in the IT field or want to understand how it affects your career and business. The new Second Edition has been updated for the latest trends and threats, including new material on many infosec subjects. Learn about information security without wading through a huge textbook Covers both theoretical and practical aspects of information security Provides a broad view of the information security field in a concise manner All-new Second Edition updated for the latest information security trends and threats, including material on incident response, social engineering, security awareness, risk management, and legal/regulatory issues

Implement information security effectively as per your organization's needs. About This Book Learn to build your own information security framework, the best fit for your organization Build on the concepts of threat modeling, incidence response, and security analysis Practical use cases and best practices for information security Who This Book Is For This book is for security analysts and professionals who deal with security mechanisms in an organization. If you are looking for an end to end guide on information security and risk analysis with no prior knowledge of this domain, then this book is for you. What You Will Learn Develop your own information security framework Build your incident response mechanism Discover cloud security considerations Get to know the system development life cycle Get your security operation center up and running Know the various security testing types Balance security as per your business needs Implement information security best practices In Detail Having an information security mechanism is one of the most crucial factors for any organization. Important assets of organization demand a proper risk management and threat model for security, and so information security concepts are gaining a lot of traction. This book starts with the concept of information security and shows you why it's important. It then moves on to modules such as threat modeling, risk management, and mitigation. It also covers the concepts of incident response systems, information rights management, and more. Moving on, it guides you to build your own information security framework as the best fit for your organization. Toward the end, you'll discover some best practices that can be implemented to make your security framework strong. By the end of this book, you will be well-versed with all the factors involved in information security, which will help you build a security framework that is a perfect fit your organization's requirements. Style and approach This book takes a practical approach, walking you through information security fundamentals, along with information security best practices.

In modern technology networks, security plays an important role in safeguarding data. Detecting the threats posed by hackers, and capturing the data about such attacks are known as the virtual honeypot. This book details the process, highlighting how to confuse the attackers and to direct them onto the wrong path.

Despite the increase of high-profile hacks, record-breaking data leaks, and ransomware attacks, many organizations don't have the budget to establish or outsource an information security (InfoSec) program, forcing them to learn on the job. For companies obliged to improvise, this pragmatic guide provides a security-101 handbook with steps, tools, processes, and ideas to help you

drive maximum-security improvement at little or no cost. Each chapter in this book provides step-by-step instructions for dealing with a specific issue, including breaches and disasters, compliance, network infrastructure and password management, vulnerability scanning, and penetration testing, among others. Network engineers, system administrators, and security professionals will learn tools and techniques to help improve security in sensible, manageable chunks. Learn fundamentals of starting or redesigning an InfoSec program Create a base set of policies, standards, and procedures Plan and design incident response, disaster recovery, compliance, and physical security Bolster Microsoft and Unix systems, network infrastructure, and password management Use segmentation practices and designs to compartmentalize your network Explore automated process and tools for vulnerability management Securely develop code to reduce exploitable errors Understand basic penetration testing concepts through purple teaming Delve into IDS, IPS, SOC, logging, and monitoring

Serious Cryptography

Crafting the InfoSec Playbook

A Beginner's Guide

The Security Leader's Communication Playbook

Master OOP by Building Games and GUIs

An Introduction to Cyber Security

Third International Conference, ICISSP 2017, Porto, Portugal, February 19-21, 2017, Revised Selected Papers

Power up your Python with object-oriented programming and learn how to write powerful, efficient, and re-usable code. Object-Oriented Python is an intuitive and thorough guide to mastering object-oriented programming from the ground up. You'll cover the basics of building classes and creating objects, and put theory into practice using the pygame package with clear examples that help visualize the object-oriented style. You'll explore the key concepts of object-oriented programming — encapsulation, polymorphism, and inheritance — and learn not just how to code with objects, but the absolute best practices for doing so. Finally, you'll bring it all together by building a complex video game, complete with full animations and sounds. The book covers two fully functional Python code packages that will speed up development of graphical user interface (GUI) programs in Python.

This book constitutes the revised selected papers of the Third International Conference on Information Systems Security and Privacy, ICISSP 2017, held in Porto, Portugal, in February 2017. The 13 full papers presented were carefully reviewed and selected from a total of 100 submissions. They are dealing with topics such as vulnerability analysis and countermeasures, attack patterns discovery and intrusion detection, malware classification and detection, cryptography applications, data privacy and anonymization, security policy analysis, enhanced access control, and socio-technical aspects of security.

This practical, tutorial-style book uses the Kali Linux distribution to teach Linux basics with a focus on how hackers would use them. Topics include Linux command line basics, filesystems, networking, BASH basics, package management, logging, and the Linux kernel and drivers. If you're getting started along the exciting path of hacking, cybersecurity, and pentesting, Linux Basics for Hackers is an excellent first step. Using Kali Linux, an advanced penetration testing distribution of Linux, you'll learn the basics of using the Linux operating system and acquire the tools and techniques you'll need to take control of a Linux environment. First, you'll learn how to install Kali on a virtual machine and get an introduction to basic Linux concepts. Next, you'll tackle broader Linux topics like manipulating text, controlling file and directory permissions, and managing user environment variables. You'll then focus in on foundational hacking concepts like security and anonymity and learn scripting skills with bash and Python. Practical tutorials and exercises throughout will reinforce and test your skills as you learn how to: - Cover your tracks by changing your network information and manipulating the rsyslog logging utility - Write a tool to scan for network connections, and connect and listen to wireless networks - Keep your internet activity stealthy using Tor, proxy servers, VPNs, and encrypted email - Write a bash script to scan open ports for potential targets - Use and abuse services like MySQL, Apache web server, and OpenSSH - Build your own hacking tools, such as a remote video spy camera and a password cracker Hacking is complex, and there is no single way in. Why not start at the beginning with Linux Basics for Hackers?

Cybersecurity is undoubtedly one of the fastest-growing fields. However, there is an acute shortage of skilled workforce. The cybersecurity beginners guide aims at teaching security enthusiasts all about organizational digital assets' security, give them an overview of how the field operates, applications of cybersecurity across sectors and industries, and skills and certifications one needs to build and scale up a career in this field.

A Hands-On Introduction to Hacking

A Straightforward Introduction

Ensuring Network Security through the Use of the Honeypot Technique

The Basics of Information Security

Digital Security in a Networked World

Information Systems Security and Privacy

This anniversary edition which has stood the test of time as a runaway best-seller provides a practical, straight-forward guide to achieving security throughout computer networks. No theory, no math, no fiction of what should be working but isn't, just the facts. Known as the master of cryptography, Schneier uses his extensive field experience with his own clients to dispel the myths that often mislead IT managers as they try to build secure

systems. A much-touted section: Schneier's tutorial on just what cryptography (a subset of computer security) can and cannot do for them, has received far-reaching praise from both the technical and business community. Praise for Secrets and Lies "This is a business issue, not a technical one, and executives can no longer leave such decisions to techies. That's why Secrets and Lies belongs in every manager's library."-Business Week "Startlingly lively....a jewel box of little surprises you can actually use."-Fortune "Secrets is a comprehensive, well-written work on a topic few business leaders can afford to neglect."-Business 2.0 "Instead of talking algorithms to geeky programmers, [Schneier] offers a primer in practical computer security aimed at those shopping, communicating or doing business online-almost everyone, in other words."-The Economist "Schneier...peppers the book with lively anecdotes and aphorisms, making it unusually accessible."-Los Angeles Times With a new and compelling Introduction by the author, this premium edition will become a keepsake for security enthusiasts of every stripe.

High-level overview of the information security field. Covers key concepts like confidentiality, integrity, and availability, then dives into practical applications of these ideas in the areas of operational, physical, network, application, and operating system security. In this high-level survey of the information security field, best-selling author Jason Andress covers the basics of a wide variety of topics, from authentication and authorization to maintaining confidentiality and performing penetration testing. Using real-world security breaches as examples, Foundations of Information Security explores common applications of these concepts, such as operations security, network design, hardening and patching operating systems, securing mobile devices, as well as tools for assessing the security of hosts and applications. You'll also learn the basics of topics like: •Multifactor authentication and how biometrics and hardware tokens can be used to harden the authentication process •The principles behind modern cryptography, including symmetric and asymmetric algorithms, hashes, and certificates •The laws and regulations that protect systems and data •Anti-malware tools, firewalls, and intrusion detection systems •Vulnerabilities such as buffer overflows and race conditions A valuable resource for beginning security professionals, network systems administrators, or anyone new to the field, Foundations of Information Security is a great place to start your journey into the dynamic and rewarding field of information security.

Covers: elements of computer security; roles and responsibilities; common threats; computer security policy; computer security program and risk management; security and planning in the computer system life cycle; assurance; personnel/user issues; preparing for contingencies and disasters; computer security incident handling; awareness, training, and education; physical and environmental security; identification and authentication; logical access control; audit trails; cryptography; and assessing and mitigating the risks to a hypothetical computer system.

A Practical Guide to TPM 2.0: Using the Trusted Platform Module in the New Age of Security is a straight-forward primer for developers. It shows security and TPM concepts, demonstrating their use in real applications that the reader can try out. Simply put, this book is designed to empower and excite the programming community to go out and do cool things with the TPM. The approach is to ramp the reader up quickly and keep their interest.A Practical Guide to TPM 2.0: Using the Trusted Platform Module in the New Age of Security explains security concepts, describes the TPM 2.0 architecture, and provides code and pseudo-code examples in parallel, from very simple concepts and code to highly complex concepts and pseudo-code. The book includes instructions for the available execution environments and real code examples to get readers up and talking to the TPM quickly. The authors then help the users expand on that with pseudo-code descriptions of useful applications using the TPM.

Cybersecurity Blue Team Toolkit

Defensive Security Handbook

Using the Trusted Platform Module in the New Age of Security

Penetration Testing

Encyclopedia of Information Ethics and Security

Best Practices for Securing Infrastructure

Business Analytics Using R - A Practical Approach

Introduction to Computer Security draws upon Bishop's widely praised Computer Security: Art and Science, without the highly complex and mathematical coverage that most undergraduate students would find difficult or unnecessary. The result: the field's most concise, accessible, and useful introduction. Matt Bishop thoroughly introduces fundamental techniques and principles for modeling and analyzing security. Readers learn how to express security requirements, translate requirements into policies, implement mechanisms that enforce policy, and ensure that policies are effective. Along the way, the author explains how failures may be exploited by attackers--and how attacks may be discovered, understood, and countered. Supplements available including slides and solutions.

Increase profitability, elevate work culture, and exceed productivity goals through DevOps practices. More than ever, the effective management of technology is critical for business competitiveness. For decades, technology leaders have struggled to balance agility, reliability, and security. The consequences of failure have never been greater—whether it's the healthcare.gov debacle, cardholder data breaches, or missing the boat with Big Data in the cloud. And yet, high performers using DevOps principles, such as Google, Amazon, Facebook, Etsy, and Netflix, are routinely and reliably deploying code into production hundreds, or even thousands, of times per day. Following in the footsteps of The Phoenix Project, The DevOps Handbook shows leaders how to replicate these incredible outcomes, by showing how to integrate Product Management, Development, QA, IT Operations, and Information Security to elevate your company and win in the marketplace.

A practical handbook to cybersecurity for both tech and non-tech professionals As reports of major data breaches fill the headlines, it has become impossible for any business, large or small, to ignore the importance of cybersecurity. Most books on the subject, however, are either too specialized for the non-technical professional or too general for positions in the IT trenches. Thanks to author Nadean Tanner's wide array of experience from teaching at a University to working for the Department of Defense, the Cybersecurity Blue Team Toolkit strikes the perfect balance of substantive and accessible, making it equally useful to those in IT or management positions across a variety of industries. This handy guide takes a simple and strategic look at best practices and tools available to both cybersecurity management and hands-on professionals, whether they be new to the field or looking to expand their expertise. Tanner gives comprehensive coverage to such crucial topics as security assessment and configuration, strategies for protection and defense, offensive measures, and remediation while aligning the concept with the right tool using the CIS Controls version 7 as a guide. Readers will learn why and how to use fundamental open source and free tools such as ping, tracert, PuTTY, pathping, sysinternals,

NMAP, OpenVAS, Nexpose Community, OSSEC, Hamachi, InSSIDer, Nexpose Community, Wireshark, Solarwinds Kiwi Syslog Server, Metasploit, Burp, Clonezilla and many more. Up-to-date and practical cybersecurity instruction, applicable to both management and technical positions ⬜ Straightforward explanations of the theory behind cybersecurity best practices ⬜ Designed to be an easily navigated tool for daily use ⬜ Includes training appendix on Linux, how to build a virtual lab and glossary of key terms The Cybersecurity Blue Team Toolkit is an excellent resource for anyone working in digital policy as well as IT security professionals, technical analysts, program managers, and Chief Information and Technology Officers. This is one handbook that won't gather dust on the shelf, but remain a valuable reference at any career level, from student to executive.

Any good attacker will tell you that expensive security monitoring and prevention tools aren't enough to keep you secure. This practical book demonstrates a data-centric approach to distilling complex security monitoring, incident response, and threat analysis ideas into their most basic elements. You'll learn how to develop your own threat intelligence and incident detection strategy, rather than depend on security tools alone. Written by members of Cisco's Computer Security Incident Response Team, this book shows IT and information security professionals how to create an InfoSec playbook by developing strategy, technique, and architecture. Learn incident response fundamentals—and the importance of getting back to basics Understand threats you face and what you should be protecting Collect, mine, organize, and analyze as many relevant data sources as possible Build your own playbook of repeatable methods for security monitoring and response Learn how to put your plan into action and keep it running smoothly Select the right monitoring and detection tools for your environment Develop queries to help you sort through data and create valuable reports Know what actions to take during the incident response phase