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Cuckoo Malware Analysis Digital Forensics and Incident Response **Malware Analysis Techniques The Cuckoo's Egg Proceedings of the 5th International Conference on Frontiers in Intelligent Computing: Theory and Applications Operationalizing Threat Intelligence Practical Malware Analysis Advances in Computational Intelligence and Communication Technology Intelligence in Big Data Technologies—Beyond the Hype** 17th International Conference on Information Technology–New Generations (ITNG 2020) **Cybersecurity Blue Team Toolkit Security Automation with Ansible 2 Knowledge Engineering and Management Detection of Intrusions and Malware, and Vulnerability Assessment** *Malware Detection* **Detection of Intrusions and Malware, and Vulnerability Assessment** Detection of Intrusions and Malware, and Vulnerability Assessment *Proceedings of the International Conference on Paradigms of Communication, Computing and Data Sciences* Gray Hat C# **CEH v10 Certified Ethical Hacker Study Guide The Art of Cyberwarfare Cyber Security Cryptography and Machine Learning Advances in Decision Sciences, Image Processing, Security and Computer Vision CompTIA Security+ Deluxe Study Guide with Online Labs** Advances in Biometrics **Machine Intelligence and Big Data Analytics for Cybersecurity Applications** 16th International Conference on Cyber Warfare and Security International Conference on Innovative Computing and Communications Malware Analysis Using Artificial Intelligence and Deep Learning Malware Forensics Field Guide for Windows Systems **Information Systems Security and Privacy Intelligent Computing** Proceedings of International Conference on Advances in Computer Engineering and Communication Systems *Computational Science and Its Applications – ICCSA 2021* **Network Intrusion Detection using Deep Learning** Information Security and Cryptology **Advances in Information and Communication Handbook of Big Data Privacy** *Autonomous Cyber Deception* **Malware Data Science**

Gray Hat C# Apr 13 2021 Learn to use C#'s powerful set of core libraries to automate tedious yet important tasks like performing vulnerability scans, malware analysis, and incident response. With some help from Mono, you can write your own practical security tools that will run on Mac, Linux, and even mobile devices. Following a crash course in C# and some of its advanced features, you'll learn how to: –Write fuzzers that use the HTTP and XML libraries to scan for SQL and XSS injection –Generate shellcode in Metasploit to create cross-platform and cross-architecture payloads –Automate Nessus, OpenVAS, and sqlmap to scan for vulnerabilities and exploit SQL injections –Write a .NET decompiler for Mac and Linux –Parse and read offline registry hives to dump system information –Automate the security tools Arachni and Metasploit using their MSGPACK RPCs Streamline and simplify your work day with Gray Hat C# and C#'s extensive repertoire of powerful tools and libraries.

17th International Conference on Information Technology–New Generations (ITNG 2020) Jan 23 2022 This volume presents the 17th International Conference on Information Technology—New Generations (ITNG), and chronicles an annual event on state of the art technologies for digital information and communications. The application of advanced information technology to such domains as astronomy, biology, education, geosciences, security, and healthcare are among the themes explored by the ITNG proceedings. Visionary ideas, theoretical and experimental results, as well as prototypes, designs, and tools that help information flow to end users are of special interest. Specific topics include Machine Learning, Robotics, High Performance Computing, and Innovative Methods of Computing. The conference features keynote speakers; a best student contribution award, poster award, and service award; a technical open panel, and workshops/exhibits from industry, government, and academia.

Malware Analysis Using Artificial Intelligence and Deep Learning Jun 03 2020 This book is focused on the use of deep learning (DL) and artificial intelligence (AI) as tools to advance the fields of malware

detection and analysis. The individual chapters of the book deal with a wide variety of state-of-the-art AI and DL techniques, which are applied to a number of challenging malware-related problems. DL and AI based approaches to malware detection and analysis are largely data driven and hence minimal expert domain knowledge of malware is needed. This book fills a gap between the emerging fields of DL/AI and malware analysis. It covers a broad range of modern and practical DL and AI techniques, including frameworks and development tools enabling the audience to innovate with cutting-edge research advancements in a multitude of malware (and closely related) use cases.

International Conference on Innovative Computing and Communications Jul 05 2020 This book includes high-quality research papers presented at the Third International Conference on Innovative Computing and Communication (ICICC 2020), which is held at the Shaheed Sukhdev College of Business Studies, University of Delhi, Delhi, India, on 21–23 February, 2020. Introducing the innovative works of scientists, professors, research scholars, students and industrial experts in the field of computing and communication, the book promotes the transformation of fundamental research into institutional and industrialized research and the conversion of applied exploration into real-time applications.

Proceedings of the International Conference on Paradigms of Communication, Computing and Data Sciences May 15 2021 This book gathers selected high-quality research papers presented at the International Conference on Paradigms of Communication, Computing and Data Sciences (PCCDS 2021), held at the National Institute of Technology, Kurukshetra, India, during May 07–09, 2021. It discusses high-quality and cutting-edge research in the areas of advanced computing, communications, and data science techniques. The book is a collection of latest research articles in computation algorithm, communication, and data sciences, intertwined with each other for efficiency.

Autonomous Cyber Deception Jul 25 2019 This textbook surveys the knowledge base in automated and resilient cyber deception. It features four major parts: cyber deception reasoning frameworks, dynamic decision-making for cyber deception, network-based deception, and malware deception. An important distinguishing characteristic of this book is its inclusion of student exercises at the end of each chapter. Exercises include technical problems, short-answer discussion questions, or hands-on lab exercises, organized at a range of difficulties from easy to advanced,. This is a useful textbook for a wide range of classes and degree levels within the security arena and other related topics. It's also suitable for researchers and practitioners with a variety of cyber security backgrounds from novice to experienced.

Cyber Security Cryptography and Machine Learning Jan 11 2021 This book constitutes the refereed proceedings of the 5th International Symposium on Cyber Security Cryptography and Machine Learning, CSCML 2021, held in Be'er Sheva, Israel, in July 2021. The 22 full and 13 short papers presented together with a keynote paper in this volume were carefully reviewed and selected from 48 submissions. They deal with the theory, design, analysis, implementation, or application of cyber security, cryptography and machine learning systems and networks, and conceptually innovative topics in these research areas.

Proceedings of International Conference on Advances in Computer Engineering and Communication Systems Jan 29 2020 This book comprises the best deliberations with the theme "Smart Innovations in Mezzanine Technologies, Data Analytics, Networks and Communication Systems" in the "International Conference on Advances in Computer Engineering and Communication Systems (ICACECS 2020)", organized by the Department of Computer Science and Engineering, VNR Vignana Jyothi Institute of Engineering and Technology. The book provides insights on the recent trends and developments in the field of computer science with a special focus on the mezzanine technologies and creates an arena for collaborative innovation. The book focuses on advanced topics in artificial intelligence, machine learning, data mining and big data computing, cloud computing, Internet on things, distributed computing and smart systems.

Detection of Intrusions and Malware, and Vulnerability Assessment Jul 17 2021 This book constitutes the refereed proceedings of the 12th International Conference on Detection of Intrusions and Malware,

and Vulnerability Assessment, DIMVA 2015, held in Milan, Italy, in July 2015. The 17 revised full papers presented were carefully reviewed and selected from 75 submissions. The papers are organized in topical sections on attacks, attack detection, binary analysis and mobile malware protection, social networks and large-scale attacks, Web and mobile security, and provenance and data sharing.

Advances in Decision Sciences, Image Processing, Security and Computer Vision Dec 10 2020 This book constitutes the proceedings of the First International Conference on Emerging Trends in Engineering (ICETE), held at University College of Engineering and organised by the Alumni Association, University College of Engineering, Osmania University, in Hyderabad, India on 22–23 March 2019. The proceedings of the ICETE are published in three volumes, covering seven areas: Biomedical, Civil, Computer Science, Electrical & Electronics, Electronics & Communication, Mechanical, and Mining Engineering. The 215 peer-reviewed papers from around the globe present the latest state-of-the-art research, and are useful to postgraduate students, researchers, academics and industry engineers working in the respective fields. Volume 1 presents papers on the theme "Advances in Decision Sciences, Image Processing, Security and Computer Vision – International Conference on Emerging Trends in Engineering (ICETE)". It includes state-of-the-art technical contributions in the area of biomedical and computer science engineering, discussing sustainable developments in the field, such as instrumentation and innovation, signal and image processing, Internet of Things, cryptography and network security, data mining and machine learning.

Malware Detection Aug 18 2021 This book captures the state of the art research in the area of malicious code detection, prevention and mitigation. It contains cutting-edge behavior-based techniques to analyze and detect obfuscated malware. The book analyzes current trends in malware activity online, including botnets and malicious code for profit, and it proposes effective models for detection and prevention of attacks using. Furthermore, the book introduces novel techniques for creating services that protect their own integrity and safety, plus the data they manage.

Knowledge Engineering and Management Oct 20 2021 These proceedings present technical papers selected from the 2012 International Conference on Intelligent Systems and Knowledge Engineering (ISKE 2012), held on December 15-17 in Beijing. The aim of this conference is to bring together experts from different fields of expertise to discuss the state-of-the-art in Intelligent Systems and Knowledge Engineering, and to present new findings and perspectives on future developments. The proceedings introduce current scientific and technical advances in the fields of artificial intelligence, machine learning, pattern recognition, data mining, knowledge engineering, information retrieval, information theory, knowledge-based systems, knowledge representation and reasoning, multi-agent systems, and natural-language processing, etc. Furthermore they include papers on new intelligent computing paradigms, which combine new computing methodologies, e.g., cloud computing, service computing and pervasive computing with traditional intelligent methods. By presenting new methodologies and practices, the proceedings will benefit both researchers and practitioners who want to utilize intelligent methods in their specific fields. Dr. Fuchun Sun is a professor at the Department of Computer Science & Technology, Tsinghua University, China. Dr. Tianrui Li is a professor at the School of Information Science & Technology, Southwest Jiaotong University, Chengdu, China. Dr. Hongbo Li also works at the Department of Computer Science & Technology, Tsinghua University, China.

Advances in Information and Communication Sep 26 2019 This book presents high-quality research on the concepts and developments in the field of information and communication technologies, and their applications. It features 134 rigorously selected papers (including 10 poster papers) from the Future of Information and Communication Conference 2020 (FICC 2020), held in San Francisco, USA, from March 5 to 6, 2020, addressing state-of-the-art intelligent methods and techniques for solving real-world problems along with a vision of future research Discussing various aspects of communication, data science, ambient intelligence, networking, computing, security and Internet of Things, the book offers researchers, scientists, industrial engineers and students valuable insights into the current research and next generation information science and communication technologies.

Advances in Biometrics Oct 08 2020 This book provides a framework for robust and novel biometric

techniques, along with implementation and design strategies. The theory, principles, pragmatic and modern methods, and future directions of biometrics are presented, along with in-depth coverage of biometric applications in driverless cars, automated and AI-based systems, IoT, and wearable devices. Additional coverage includes computer vision and pattern recognition, cybersecurity, cognitive computing, soft biometrics, and the social impact of biometric technology. The book will be a valuable reference for researchers, faculty, and practicing professionals working in biometrics and related fields, such as image processing, computer vision, and artificial intelligence. Highlights robust and novel biometrics techniques Provides implementation strategies and future research directions in the field of biometrics Includes case studies and emerging applications

Computational Science and Its Applications – ICCSA 2021 Dec 30 2019 The ten-volume set LNCS 12949 – 12958 constitutes the proceedings of the 21st International Conference on Computational Science and Its Applications, ICCSA 2021, which was held in Cagliari, Italy, during September 13 – 16, 2021. The event was organized in a hybrid mode due to the Covid-19 pandemic.The 466 full and 18 short papers presented in these proceedings were carefully reviewed and selected from 1588 submissions. The books cover such topics as multicore architectures, mobile and wireless security, sensor networks, open source software, collaborative and social computing systems and tools, cryptography, human computer interaction, software design engineering, and others. Part III of the set icludes papers on Information Systems and Technologies and the proceeding of the following workshops: International Workshop on Automatic landform classification: spatial methods and applications (ALCSMA 2021); International Workshop on Application of Numerical Analysis to Imaging Science (ANAIS 2021); International Workshop on Advances in information Systems and Technologies for Emergency management, risk assessment and mitigationbased on the Resilience concepts (ASTER 2021); International Workshop on Advances in Web Based Learning (AWBL 2021).

Detection of Intrusions and Malware, and Vulnerability Assessment Jun 15 2021 This book constitutes the refereed proceedings of the 14th International Conference on Detection of Intrusions and Malware, and Vulnerability Assessment, DIMVA 2017, held in Bonn, Germany, in July 2017. The 18 revised full papers included in this book were carefully reviewed and selected from 67 submissions. They present topics such as enclaves and isolation; malware analysis; cyber-physical systems; detection and protection; code analysis; and web security.

Network Intrusion Detection using Deep Learning Nov 28 2019 This book presents recent advances in intrusion detection systems (IDSs) using state-of-the-art deep learning methods. It also provides a systematic overview of classical machine learning and the latest developments in deep learning. In particular, it discusses deep learning applications in IDSs in different classes: generative, discriminative, and adversarial networks. Moreover, it compares various deep learning-based IDSs based on benchmarking datasets. The book also proposes two novel feature learning models: deep feature extraction and selection (D-FES) and fully unsupervised IDS. Further challenges and research directions are presented at the end of the book. Offering a comprehensive overview of deep learning-based IDS, the book is a valuable reerence resource for undergraduate and graduate students, as well as researchers and practitioners interested in deep learning and intrusion detection. Further, the comparison of various deep-learning applications helps readers gain a basic understanding of machine learning, and inspires applications in IDS and other related areas in cybersecurity.

Information Security and Cryptology Oct 27 2019 This book constitutes the thoroughly refereed post-conference proceedings of the 13th International Conference on Information Security and Cryptology, Inscrypt 2017, held in Xi'an, China, in November 2017. The 27 revised full papers presented together with 5 keynote speeches were carefully reviewed and selected from 80 submissions. The papers are organized in the following topical sections: cryptographic protocols and algorithms; digital signatures; encryption; cryptanalysis and attack; and applications.

Proceedings of the 5th International Conference on Frontiers in Intelligent Computing: Theory and Applications Jun 27 2022 The book is a collection of high-quality peer-reviewed research papers presented at International Conference on Frontiers of Intelligent Computing: Theory and applications

(FICTA 2016) held at School of Computer Engineering, KIIT University, Bhubaneswar, India during 16 – 17 September 2016. The book presents theories, methodologies, new ideas, experiences and applications in all areas of intelligent computing and its applications to various engineering disciplines like computer science, electronics, electrical and mechanical engineering.

Malware Forensics Field Guide for Windows Systems May 03 2020 Dissecting the dark side of the Internet with its infectious worms, botnets, rootkits, and Trojan horse programs (known as malware) is a treaterous condition for any forensic investigator or analyst. Written by information security experts with real-world investigative experience, Malware Forensics Field Guide for Windows Systems is a "tool" with checklists for specific tasks, case studies of difficult situations, and expert analyst tips. *A condensed hand-held guide complete with on-the-job tasks and checklists *Specific for Windows-based systems, the largest running OS in the world *Authors are world-renowned leaders in investigating and analyzing malicious code

The Cuckoo's Egg Jul 29 2022 The first true account of computer espionage tells of a year-long single-handed hunt for a computer thief who sold information from American computer files to Soviet intelligence agents

Cybersecurity Blue Team Toolkit Dec 22 2021 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.

Cuckoo Malware Analysis Nov 01 2022 This book is a step-by-step, practical tutorial for analyzing and detecting malware and performing digital investigations. This book features clear and concise guidance in an easily accessible format.Cuckoo Malware Analysis is great for anyone who wants to analyze malware through programming, networking, disassembling, forensics, and virtualization. Whether you are new to malware analysis or have some experience, this book will help you get started with Cuckoo Sandbox so you can start analysing malware effectively and efficiently.

Information Systems Security and Privacy Apr 01 2020 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.

Intelligent Computing Mar 01 2020 This book, gathering the Proceedings of the 2018 Computing Conference, offers a remarkable collection of chapters covering a wide range of topics in intelligent systems, computing and their real-world applications. The Conference attracted a total of 568 submissions from pioneering researchers, scientists, industrial engineers, and students from all around the world. These submissions underwent a double-blind peer review process. Of those 568 submissions, 192 submissions (including 14 poster papers) were selected for inclusion in these proceedings. Despite computer science's comparatively brief history as a formal academic discipline, it has made a number of fundamental contributions to science and society—in fact, along with electronics, it is a founding science of the current epoch of human history ('the Information Age') and a main driver of the Information Revolution. The goal of this conference is to provide a platform for researchers to present fundamental contributions, and to be a premier venue for academic and industry practitioners to share new ideas and development experiences. This book collects state of the art chapters on all aspects of Computer Science, from classical to intelligent. It covers both the theory and applications of the latest computer technologies and methodologies. Providing the state of the art in intelligent methods and techniques for solving real-world problems, along with a vision of future research, the book will be interesting and valuable for a broad readership.

CEH v10 Certified Ethical Hacker Study Guide Mar 13 2021 As protecting information becomes a rapidly growing concern for today's businesses, certifications in IT security have become highly desirable, even as the number of certifications has grown. Now you can set yourself apart with the Certified Ethical Hacker (CEH v10) certification. The CEH v10 Certified Ethical Hacker Study Guide offers a comprehensive overview of the CEH certification requirements using concise and easy-to-follow instruction. Chapters are organized by exam objective, with a handy section that maps each objective to its corresponding chapter, so you can keep track of your progress. The text provides thorough coverage of all topics, along with challenging chapter review questions and Exam Essentials, a key feature that identifies critical study areas. Subjects include intrusion detection, DDoS attacks, buffer overflows, virus creation, and more. This study guide goes beyond test prep, providing practical hands-on exercises to reinforce vital skills and real-world scenarios that put what you've learned into the context of actual job roles. Gain a unique certification that allows you to understand the mind of a hacker Expand your career opportunities with an IT certificate that satisfies the Department of Defense's 8570 Directive for Information Assurance positions Fully updated for the 2018 CEH v10 exam, including the latest developments in IT security Access the Sybex online learning center, with chapter review questions, full-length practice exams, hundreds of electronic flashcards, and a glossary of key terms Thanks to its clear organization, all-inclusive coverage, and practical instruction, the CEH v10 Certified Ethical Hacker Study Guide is an excellent resource for anyone who needs to understand the hacking process or anyone who wants to demonstrate their skills as a Certified Ethical Hacker.

16th International Conference on Cyber Warfare and Security Aug 06 2020 These proceedings represent the work of contributors to the 16th International Conference on Cyber Warfare and Security (ICCWS 2021), hosted by joint collaboration of Tennessee Tech Cybersecurity Education, Research and Outreach Center (CEROC), Computer Science department and the Oak Ridge National Laboratory, Tennessee on 25-26 February 2021. The Conference Co-Chairs are Dr. Juan Lopez Jr, Oak Ridge National Laboratory, Tennessee, and Dr. Ambareen Siraj, Tennessee Tech's Cybersecurity Education, Research and Outreach Center (CEROC), and the Program Chair is Dr. Kalyan Perumalla, from Oak Ridge National Laboratory, Tennessee.

Practical Malware Analysis Apr 25 2022 Malware analysis is big business, and attacks can cost a company dearly. When malware breaches your defenses, you need to act quickly to cure current infections and prevent future ones from occurring. For those who want to stay ahead of the latest malware, Practical Malware Analysis will teach you the tools and techniques used by professional analysts. With this book as your guide, you'll be able to safely analyze, debug, and disassemble any malicious software that comes your way. You'll learn how to: –Set up a safe virtual environment to

analyze malware –Quickly extract network signatures and host-based indicators –Use key analysis tools like IDA Pro, OllyDbg, and WinDbg –Overcome malware tricks like obfuscation, anti-disassembly, anti-debugging, and anti-virtual machine techniques –Use your newfound knowledge of Windows internals for malware analysis –Develop a methodology for unpacking malware and get practical experience with five of the most popular packers –Analyze special cases of malware with shellcode, C++, and 64-bit code Hands-on labs throughout the book challenge you to practice and synthesize your skills as you dissect real malware samples, and pages of detailed dissections offer an over-the-shoulder look at how the pros do it. You'll learn how to crack open malware to see how it really works, determine what damage it has done, thoroughly clean your network, and ensure that the malware never comes back. Malware analysis is a cat-and-mouse game with rules that are constantly changing, so make sure you have the fundamentals. Whether you're tasked with securing one network or a thousand networks, or you're making a living as a malware analyst, you'll find what you need to succeed in Practical Malware Analysis.

CompTIA Security+ Deluxe Study Guide with Online Labs Nov 08 2020 Learn the key objectives and most crucial concepts covered by the Security+ Exam SY0-601 with this comprehensive and practical Deluxe Study Guide Covers 100% of exam objectives including threats, attacks, and vulnerabilities; technologies and tools; architecture and design; identity and access management; risk management; cryptography and PKI, and much more... Includes interactive online learning environment and study tools with: 4 custom practice exams 100 Electronic Flashcards Searchable key term glossary Plus 33 Online Security+ Practice Lab Modules Expert Security+ SY0-601 exam preparation--Now with 33 Online Lab Modules The Fifth edition of CompTIA Security+ Deluxe Study Guide offers invaluable preparation for Exam SY0-601. Written by expert authors, Mike Chapple and David Seidl, the book covers 100% of the exam objectives with clear and concise explanations. Discover how to handle threats, attacks, and vulnerabilities using industry-standard tools and technologies, while gaining and understanding the role of architecture and design. Spanning topics from everyday tasks like identity and access management to complex subjects such as risk management and cryptography, this study guide helps you consolidate your knowledge base in preparation for the Security+ exam. Illustrative examples show how these processes play out in real-world scenarios, allowing you to immediately translate essential concepts to on-the-job application. Coverage of 100% of all exam objectives in this Study Guide means you'll be ready for: Attacks, Threats, and Vulnerabilities Architecture and Design Implementation Operations and Incident Response Governance, Risk, and Compliance Interactive learning environment Take your exam prep to the next level with Sybex's superior interactive online study tools. To access our learning environment, simply visit www.wiley.com/go/sybextestprep, register your book to receive your unique PIN, and instantly gain one year of FREE access after activation to: Interactive test bank with 4 bonus exams. Practice questions help you identify areas where further review is needed. 100 Electronic Flashcards to reinforce learning and last-minute prep before the exam. Comprehensive glossary in PDF format gives you instant access to the key terms so you are fully prepared. ABOUT THE PRACTICE LABS SECURITY+ LABS So you can practice with hands-on learning in a real environment, Sybex has bundled Practice Labs virtual labs that run from your browser. The registration code is included with the book and gives you 6 months unlimited access to Practice Labs CompTIA Security+ Exam SY0-601 Labs with 33 unique lab modules to practice your skills. If you are unable to register your lab PIN code, please contact Wiley customer support for a replacement PIN code.

Intelligence in Big Data Technologies—Beyond the Hype Feb 21 2022 This book is a compendium of the proceedings of the International Conference on Big-Data and Cloud Computing. The papers discuss the recent advances in the areas of big data analytics, data analytics in cloud, smart cities and grid, etc. This volume primarily focuses on the application of knowledge which promotes ideas for solving problems of the society through cutting-edge big-data technologies. The essays featured in this proceeding provide novel ideas that contribute for the growth of world class research and development. It will be useful to researchers in the area of advanced engineering sciences.

Security Automation with Ansible 2 Nov 20 2021 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.

Malware Analysis Techniques Aug 30 2022 Analyze malicious samples, write reports, and use industry-standard methodologies to confidently triage and analyze adversarial software and malware Key FeaturesInvestigate, detect, and respond to various types of malware threatUnderstand how to use what you've learned as an analyst to produce actionable IOCs and reportingExplore complete solutions, detailed walkthroughs, and case studies of real-world malware samplesBook Description Malicious software poses a threat to every enterprise globally. Its growth is costing businesses millions of dollars due to currency theft as a result of ransomware and lost productivity. With this book, you'll learn how to quickly triage, identify, attribute, and remediate threats using proven analysis techniques. Malware Analysis Techniques begins with an overview of the nature of malware, the current threat landscape, and its impact on businesses. Once you've covered the basics of malware, you'll move on to discover more about the technical nature of malicious software, including static characteristics and dynamic attack methods within the MITRE ATT&CK framework. You'll also find out how to perform practical malware analysis by applying all that you've learned to attribute the malware to a specific threat and weaponize the adversary's indicators of compromise (IOCs) and methodology against them to prevent them from attacking. Finally, you'll get to grips with common tooling utilized by professional malware analysts and understand the basics of reverse engineering with the NSA's Ghidra platform. By the end of this malware analysis book, you'll be able to perform in-depth static and dynamic analysis and automate key tasks for improved defense against attacks. What you will learnDiscover how to maintain

a safe analysis environment for malware samplesGet to grips with static and dynamic analysis techniques for collecting IOCsReverse-engineer and debug malware to understand its purposeDevelop a well-polished workflow for malware analysisUnderstand when and where to implement automation to react quickly to threatsPerform malware analysis tasks such as code analysis and API inspectionWho this book is for This book is for incident response professionals, malware analysts, and researchers who want to sharpen their skillset or are looking for a reference for common static and dynamic analysis techniques. Beginners will also find this book useful to get started with learning about malware analysis. Basic knowledge of command-line interfaces, familiarity with Windows and Unix-like filesystems and registries, and experience in scripting languages such as PowerShell, Python, or Ruby will assist with understanding the concepts covered.

Malware Data Science Jun 23 2019 Malware Data Science explains how to identify, analyze, and classify large-scale malware using machine learning and data visualization. Security has become a "big data" problem. The growth rate of malware has accelerated to tens of millions of new files per year while our networks generate an ever-larger flood of security-relevant data each day. In order to defend against these advanced attacks, you'll need to know how to think like a data scientist. In Malware Data Science, security data scientist Joshua Saxe introduces machine learning, statistics, social network analysis, and data visualization, and shows you how to apply these methods to malware detection and analysis. You'll learn how to: - Analyze malware using static analysis - Observe malware behavior using dynamic analysis - Identify adversary groups through shared code analysis - Catch 0-day vulnerabilities by building your own machine learning detector - Measure malware detector accuracy - Identify malware campaigns, trends, and relationships through data visualization Whether you're a malware analyst looking to add skills to your existing arsenal, or a data scientist interested in attack detection and threat intelligence, Malware Data Science will help you stay ahead of the curve.

Handbook of Big Data Privacy Aug 25 2019 This handbook provides comprehensive knowledge and includes an overview of the current state-of-the-art of Big Data Privacy, with chapters written by international world leaders from academia and industry working in this field. The first part of this book offers a review of security challenges in critical infrastructure and offers methods that utilize acritical intelligence (AI) techniques to overcome those issues. It then focuses on big data security and privacy issues in relation to developments in the Industry 4.0. Internet of Things (IoT) devices are becoming a major source of security and privacy concern in big data platforms. Multiple solutions that leverage machine learning for addressing security and privacy issues in IoT environments are also discussed this handbook. The second part of this handbook is focused on privacy and security issues in different layers of big data systems. It discusses about methods for evaluating security and privacy of big data systems on network, application and physical layers. This handbook elaborates on existing methods to use data analytic and AI techniques at different layers of big data platforms to identify privacy and security attacks. The final part of this handbook is focused on analyzing cyber threats applicable to the big data environments. It offers an in-depth review of attacks applicable to big data platforms in smart grids, smart farming, FinTech, and health sectors. Multiple solutions are presented to detect, prevent and analyze cyber-attacks and assess the impact of malicious payloads to those environments. This handbook provides information for security and privacy experts in most areas of big data including; FinTech, Industry 4.0, Internet of Things, Smart Grids, Smart Farming and more. Experts working in big data, privacy, security, forensics, malware analysis, machine learning and data analysts will find this handbook useful as a reference. Researchers and advanced-level computer science students focused on computer systems, Internet of Things, Smart Grid, Smart Farming, Industry 4.0 and network analysts will also find this handbook useful as a reference.

Advances in Computational Intelligence and Communication Technology Mar 25 2022 This book features high-quality papers presented at the International Conference on Computational Intelligence and Communication Technology (CICT 2019) organized by ABES Engineering College, Ghaziabad, India, and held from February 22 to 23, 2019. It includes the latest advances and research findings in fields of computational science and communication such as communication & networking, web &

informatics, hardware and software designs, distributed & parallel processing, advanced software engineering, advanced database management systems and bioinformatics. As such, it is of interest to research scholars, students, and engineers around the globe.

The Art of Cyberwarfare Feb 09 2021 A practical guide to understanding and analyzing cyber attacks by advanced attackers, such as nation states. Cyber attacks are no longer the domain of petty criminals. Today, companies find themselves targeted by sophisticated nation state attackers armed with the resources to craft scarily effective campaigns. This book is a detailed guide to understanding the major players in these cyber wars, the techniques they use, and the process of analyzing their advanced attacks. Whether you're an individual researcher or part of a team within a Security Operations Center (SoC), you'll learn to approach, track, and attribute attacks to these advanced actors. The first part of the book is an overview of actual cyber attacks conducted by nation-state actors and other advanced organizations. It explores the geopolitical context in which the attacks took place, the patterns found in the attackers' techniques, and the supporting evidence analysts used to attribute such attacks. Dive into the mechanisms of: North Korea's series of cyber attacks against financial institutions, which resulted in billions of dollars stolen The world of targeted ransomware attacks, which have leveraged nation state tactics to cripple entire corporate enterprises with ransomware Recent cyber attacks aimed at disrupting or influencing national elections globally The book's second part walks through how defenders can track and attribute future attacks. You'll be provided with the tools, methods, and analytical guidance required to dissect and research each stage of an attack campaign. Here, Jon DiMaggio demonstrates some of the real techniques he has employed to uncover crucial information about the 2021 Colonial Pipeline attacks, among many other advanced threats. He now offers his experience to train the next generation of expert analysts.

Machine Intelligence and Big Data Analytics for Cybersecurity Applications Sep 06 2020 This book presents the latest advances in machine intelligence and big data analytics to improve early warning of cyber-attacks, for cybersecurity intrusion detection and monitoring, and malware analysis. Cyber-attacks have posed real and wide-ranging threats for the information society. Detecting cyber-attacks becomes a challenge, not only because of the sophistication of attacks but also because of the large scale and complex nature of today's IT infrastructures. It discusses novel trends and achievements in machine intelligence and their role in the development of secure systems and identifies open and future research issues related to the application of machine intelligence in the cybersecurity field. Bridging an important gap between machine intelligence, big data, and cybersecurity communities, it aspires to provide a relevant reference for students, researchers, engineers, and professionals working in this area or those interested in grasping its diverse facets and exploring the latest advances on machine intelligence and big data analytics for cybersecurity applications.

Detection of Intrusions and Malware, and Vulnerability Assessment Sep 18 2021 This book constitutes the refereed proceedings of the 15th International Conference on Detection of Intrusions and Malware, and Vulnerability Assessment, DIMVA 2018, held in Saclay, France, in June 2018. The 17 revised full papers and 1 short paper included in this book were carefully reviewed and selected from 59 submissions. They present topics such as malware analysis; mobile and embedded security; attacks; detection and containment; web and browser security; and reverse engineering.

Operationalizing Threat Intelligence May 27 2022 Learn cyber threat intelligence fundamentals to implement and operationalize an organizational intelligence program Key Features Develop and implement a threat intelligence program from scratch Discover techniques to perform cyber threat intelligence, collection, and analysis using open-source tools Leverage a combination of theory and practice that will help you prepare a solid foundation for operationalizing threat intelligence programs Book Description We're living in an era where cyber threat intelligence is becoming more important. Cyber threat intelligence routinely informs tactical and strategic decision-making throughout organizational operations. However, finding the right resources on the fundamentals of operationalizing a threat intelligence function can be challenging, and that's where this book helps. In Operationalizing Threat Intelligence, you'll explore cyber threat intelligence in five fundamental areas: defining threat

intelligence, developing threat intelligence, collecting threat intelligence, enrichment and analysis, and finally production of threat intelligence. You'll start by finding out what threat intelligence is and where it can be applied. Next, you'll discover techniques for performing cyber threat intelligence collection and analysis using open source tools. The book also examines commonly used frameworks and policies as well as fundamental operational security concepts. Later, you'll focus on enriching and analyzing threat intelligence through pivoting and threat hunting. Finally, you'll examine detailed mechanisms for the production of intelligence. By the end of this book, you'll be equipped with the right tools and understand what it takes to operationalize your own threat intelligence function, from collection to production. What you will learn Discover types of threat actors and their common tactics and techniques Understand the core tenets of cyber threat intelligence Discover cyber threat intelligence policies, procedures, and frameworks Explore the fundamentals relating to collecting cyber threat intelligence Understand fundamentals about threat intelligence enrichment and analysis Understand what threat hunting and pivoting are, along with examples Focus on putting threat intelligence into production Explore techniques for performing threat analysis, pivoting, and hunting Who this book is for This book is for cybersecurity professionals, security analysts, security enthusiasts, and anyone who is just getting started and looking to explore threat intelligence in more detail. Those working in different security roles will also be able to explore threat intelligence with the help of this security book.

Digital Forensics and Incident Response Sep 30 2022 A practical guide to deploying digital forensic techniques in response to cyber security incidents About This Book Learn incident response fundamentals and create an effective incident response framework Master forensics investigation utilizing digital investigative techniques Contains real-life scenarios that effectively use threat intelligence and modeling techniques Who This Book Is For This book is targeted at Information Security professionals, forensics practitioners, and students with knowledge and experience in the use of software applications and basic command-line experience. It will also help professionals who are new to the incident response/digital forensics role within their organization. What You Will Learn Create and deploy incident response capabilities within your organization Build a solid foundation for acquiring and handling suitable evidence for later analysis Analyze collected evidence and determine the root cause of a security incident Learn to integrate digital forensic techniques and procedures into the overall incident response process Integrate threat intelligence in digital evidence analysis Prepare written documentation for use internally or with external parties such as regulators or law enforcement agencies In Detail Digital Forensics and Incident Response will guide you through the entire spectrum of tasks associated with incident response, starting with preparatory activities associated with creating an incident response plan and creating a digital forensics capability within your own organization. You will then begin a detailed examination of digital forensic techniques including acquiring evidence, examining volatile memory, hard drive assessment, and network-based evidence. You will also explore the role that threat intelligence plays in the incident response process. Finally, a detailed section on preparing reports will help you prepare a written report for use either internally or in a courtroom. By the end of the book, you will have mastered forensic techniques and incident response and you will have a solid foundation on which to increase your ability to investigate such incidents in your organization. Style and approach The book covers practical scenarios and examples in an enterprise setting to give you an understanding of how digital forensics integrates with the overall response to cyber security incidents. You will also learn the proper use of tools and techniques to investigate common cyber security incidents such as malware infestation, memory analysis, disk analysis, and network analysis.