Sans Sec760 Advanced Exploit Development For Penetration Testers

Metasploit Toolkit for Penetration Testing, Exploit Development, and Vulnerability Research **The Shellcoder's Handbook Violent Python** Zero-Day Exploit: **Zero Days, Thousands of Nights Buffer Overflow Attacks** *Hacking- The art Of Exploitation* **Zero Days, Thousands of Nights** *A Guide to Kernel Exploitation* Mastering Machine Learning for Penetration Testing *Penetration Testing with Shellcode* **A Bug Hunter's Diary Reversing Black Hat Go** Advanced Windows Debugging iOS Hacker's Handbook Mapping Vulnerability **Real-World Bug Hunting Deep Dive** *Ethical Hacking Network Security Assessment* **Secure Coding in C and C++** Adversarial Tradecraft in Cybersecurity Social Engineering *Exploiting Software: How To Break Code* Hacking the Code **Hacking: The Next Generation Secure Programming with Static Analysis Cyber Security Essentials** *Penetration Testing* **This Is How They Tell Me the World Ends Cybersecurity Blue Team Toolkit** *Metasploit* **The Art of Software Security Assessment** *Hands-On Penetration Testing with Python Hackers Beware* Heat Pump Controls to Exploit the Energy Flexibility of Building Thermal Loads **Confessions of an Economic Hit Man Learn Ethical Hacking from Scratch** The Voice Catchers

If you ally infatuation such a referred **Sans Sec760 Advanced Exploit Development For Penetration Testers** books that will pay for you worth, get the entirely best seller from us currently from several preferred authors. If you desire to funny books, lots of novels, tale, jokes, and more fictions collections are plus launched, from best seller to one of the most current released.

You may not be perplexed to enjoy every book collections Sans Sec760 Advanced Exploit Development For Penetration Testers that we will completely offer. It is not approximately the costs. Its not quite what you compulsion currently. This Sans Sec760 Advanced Exploit Development For Penetration Testers, as one of the most working sellers here will no question be in the midst of the best options to review.

Cyber Security Essentials Jun 05 2020 The sophisticated methods used in recent high-profile cyber incidents have driven many to need to understand how such security issues work. Demystifying the complexity often associated with information assurance, Cyber Security Essentials provides a clear understanding of the concepts behind prevalent threats, tactics, and procedures.To accomplish **Learn Ethical Hacking from Scratch** Jul 27 2019 Learn how to hack systems like black hat hackers and secure them like security experts Key Features Understand how computer systems work and their vulnerabilities Exploit weaknesses and hack into machines to test their security Learn how to secure systems from hackers Book Description This book starts with the basics of ethical hacking, how to practice hacking safely and legally, and how to install and interact with Kali Linux and the Linux terminal. You will explore network hacking, where you will see how to test the security of wired and wireless networks. You'll also learn how to crack the password for any Wi-Fi network (whether it uses WEP, WPA, or WPA2) and spy on the connected devices. Moving on, you will discover how to gain access to remote computer systems using client-side and server-side attacks. You will also get the hang of post-exploitation techniques, including remotely controlling and interacting with the systems that you compromised. Towards the end of the book, you will be able to pick up web application hacking techniques. You'll see how to discover, exploit, and prevent a number of website vulnerabilities, such as XSS and SQL injections. The attacks covered are practical techniques that work against real systems and are purely for educational purposes. At the end of each section, you will learn how to detect, prevent, and secure systems from these attacks. What you will learn Understand ethical hacking and the different fields and types of hackers Set up a penetration testing lab to practice safe and legal hacking Explore Linux basics, commands, and how to interact with the terminal Access password-protected networks and spy on connected clients Use server

and client-side attacks to hack and control remote computers Control a hacked system remotely and use it to hack other systems Discover, exploit, and prevent a number of web application vulnerabilities such as XSS and SQL injections Who this book is for Learning Ethical Hacking from Scratch is for anyone interested in learning how to hack and test the security of systems like professional hackers and security experts.

Metasploit Jan 31 2020 The Metasploit Framework makes discovering, exploiting, and sharing vulnerabilities quick and relatively painless. But while Metasploit is used by security professionals everywhere, the tool can be hard to grasp for first-time users. Metasploit: The Penetration Tester's Guide fills this gap by teaching you how to harness the Framework and interact with the vibrant community of Metasploit contributors. Once you've built your foundation for penetration testing, you'll learn the Framework's conventions, interfaces, and module system as you launch simulated attacks. You'll move on to advanced penetration testing techniques, including network reconnaissance and enumeration, client-side attacks, wireless attacks, and targeted social-engineering attacks. Learn how to: –Find and exploit unmaintained, misconfigured, and unpatched systems –Perform reconnaissance and find valuable information about your target –Bypass anti-virus technologies and circumvent security controls –Integrate Nmap, NeXpose, and Nessus with Metasploit to automate discovery –Use the Meterpreter shell to launch further attacks from inside the network –Harness standalone Metasploit utilities, third-party tools, and plug-ins –Learn how to write your own Meterpreter post exploitation modules and scripts You'll even touch on exploit discovery for zero-day research, write a fuzzer, port existing exploits into the Framework, and learn how to cover your tracks. Whether your goal is to secure your own networks or to put someone else's to the test, Metasploit: The Penetration Tester's Guide will take you there and beyond.

Hacking: The Next Generation Aug 08 2020 With the advent of rich Internet applications, the explosion of social media, and the increased use of powerful cloud computing infrastructures, a new generation of attackers has added cunning new techniques to its arsenal. For anyone involved in defending an application or a network of systems, Hacking: The Next Generation is one of the few books to identify a variety of emerging attack vectors. You'll not only find valuable information on new hacks that attempt to exploit technical flaws, you'll also learn how attackers take advantage of individuals via social networking sites, and abuse vulnerabilities in wireless technologies and cloud infrastructures. Written by seasoned Internet security professionals, this book helps you understand the motives and psychology of hackers behind these attacks, enabling you to better prepare and defend against them. Learn how "inside out" techniques can poke holes into protected networks Understand the new wave of "blended threats" that take advantage of multiple application vulnerabilities to steal corporate data Recognize weaknesses in today's powerful cloud infrastructures and how they can be exploited Prevent attacks against the mobile workforce and their devices containing valuable data Be aware of attacks via social networking sites to obtain confidential information from executives and their assistants Get case studies that show how several layers of vulnerabilities can be used to compromise multinational corporations

Ethical Hacking Mar 15 2021 A hands-on guide to hacking computer systems from the ground up, from capturing traffic to crafting sneaky, successful trojans. A crash course in modern hacking techniques, Ethical Hacking is already being used to prepare the next generation of offensive security experts. In its many hands-on labs, you'll explore crucial skills for any aspiring penetration tester, security researcher, or malware analyst. You'll begin with the basics: capturing a victim's network traffic with an ARP spoofing attack and then viewing it in Wireshark. From there, you'll deploy reverse shells that let you remotely run commands on a victim's computer, encrypt files by writing your own ransomware in Python, and fake emails like the ones

used in phishing attacks. In advanced chapters, you'll learn how to fuzz for new vulnerabilities, craft trojans and rootkits, exploit websites with SQL injection, and escalate your privileges to extract credentials, which you'll use to traverse a private network. You'll work with a wide range of professional penetration testing tools—and learn to write your own tools in Python—as you practice tasks like: • Deploying the Metasploit framework's reverse shells and embedding them in innocent-seeming files • Capturing passwords in a corporate Windows network using Mimikatz • Scanning (almost) every device on the internet to find potential victims • Installing Linux rootkits that modify a victim's operating system • Performing advanced Cross-Site Scripting (XSS) attacks that execute sophisticated JavaScript payloads Along the way, you'll gain a foundation in the relevant computing technologies. Discover how advanced fuzzers work behind the scenes, learn how internet traffic gets encrypted, explore the inner mechanisms of nation-state malware like Drovorub, and much more. Developed with feedback from cybersecurity students, Ethical Hacking addresses contemporary issues in the field not often covered in other books and will prepare you for a career in penetration testing. Most importantly, you'll be able to think like an ethical hacker: someone who can carefully analyze systems and creatively gain access to them.

Confessions of an Economic Hit Man Aug 27 2019 Perkins, a former chief economist at a Boston strategic-consulting firm, confesses he was an "economic hit man" for 10 years, helping U.S. intelligence agencies and multinationals cajole and blackmail foreign leaders into serving U.S. foreign policy and awarding lucrative contracts to American business.

Mastering Machine Learning for Penetration Testing Jan 25 2022 Become a master at penetration testing using machine learning with Python Key Features Identify ambiguities and breach intelligent security systems Perform unique cyber attacks to breach robust systems Learn to leverage machine learning algorithms Book Description Cyber security is crucial for both businesses and individuals. As systems are getting smarter, we now see machine learning interrupting computer security. With the adoption of machine learning in upcoming security products, it's important for pentesters and security researchers to understand how these systems work, and to breach them for testing purposes. This book begins with the basics of machine learning and the algorithms used to build robust systems. Once you've gained a fair understanding of how security products leverage machine learning, you'll dive into the core concepts of breaching such systems. Through practical use cases, you'll see how to find loopholes and surpass a self-learning security system. As you make your way through the chapters, you'll focus on topics such as network intrusion detection and AV and IDS evasion. We'll also cover the best practices when identifying ambiguities, and extensive techniques to breach an intelligent system. By the end of this book, you will be well-versed with identifying loopholes in a self-learning security system and will be able to efficiently breach a machine learning system. What you will learn Take an in-depth look at machine learning Get to know natural language processing (NLP) Understand

malware feature engineering Build generative adversarial networks using Python libraries Work on threat hunting with machine learning and the ELK stack Explore the best practices for machine learning Who this book is for This book is for pen testers and security professionals who are interested in learning techniques to break an intelligent security system. Basic knowledge of Python is needed, but no prior knowledge of machine learning is necessary.

The Art of Software Security Assessment Jan 01 2020 The Definitive Insider's Guide to Auditing Software Security This is one of the most detailed, sophisticated, and useful guides to software security auditing ever written. The authors are leading security consultants and researchers who have personally uncovered vulnerabilities in applications ranging from sendmail to Microsoft Exchange, Check Point VPN to Internet Explorer. Drawing on their extraordinary experience, they introduce a start-to-finish methodology for "ripping apart" applications to reveal even the most subtle and well-hidden security flaws. The Art of Software Security Assessment covers the full spectrum of software vulnerabilities in both UNIX/Linux and Windows environments. It demonstrates how to audit security in applications of all sizes and functions, including network and Web software. Moreover, it teaches using extensive examples of real code drawn from past flaws in many of the industry's highest-profile applications. Coverage includes • Code auditing: theory, practice, proven methodologies, and secrets of the trade • Bridging the gap between secure software design and post-implementation review • Performing architectural assessment: design review, threat modeling, and operational review • Identifying vulnerabilities related to memory management, data types, and malformed data • UNIX/Linux assessment: privileges, files, and processes • Windows-specific issues, including objects and the filesystem • Auditing interprocess communication, synchronization, and state • Evaluating network software: IP stacks, firewalls, and common application protocols • Auditing Web applications and technologies

Social Engineering Nov 10 2020 Harden the human firewall against the most current threats Social Engineering: The Science of Human Hacking reveals the craftier side of the hacker's repertoire—why hack into something when you could just ask for access? Undetectable by firewalls and antivirus software, social engineering relies on human fault to gain access to sensitive spaces; in this book, renowned expert Christopher Hadnagy explains the most commonly-used techniques that fool even the most robust security personnel, and shows you how these techniques have been used in the past. The way that we make decisions as humans affects everything from our emotions to our security. Hackers, since the beginning of time, have figured out ways to exploit that decision making process and get you to take an action not in your best interest. This new Second Edition has been updated with the most current methods used by sharing stories, examples, and scientific study behind how those decisions are exploited. Networks and systems can be hacked, but they can also be protected; when the "system" in question is a human being, there is no software to fall back on, no hardware upgrade, no code that can lock information down

indefinitely. Human nature and emotion is the secret weapon of the malicious social engineering, and this book shows you how to recognize, predict, and prevent this type of manipulation by taking you inside the social engineer's bag of tricks. Examine the most common social engineering tricks used to gain access Discover which popular techniques generally don't work in the real world Examine how our understanding of the science behind emotions and decisions can be used by social engineers Learn how social engineering factors into some of the biggest recent headlines Learn how to use these skills as a professional social engineer and secure your company Adopt effective counter-measures to keep hackers at bay By working from the social engineer's playbook, you gain the advantage of foresight that can help you protect yourself and others from even their best efforts. Social Engineering gives you the inside information you need to mount an unshakeable defense.

Hacking the Code Sep 08 2020 Hacking the Code has over 400 pages of dedicated exploit, vulnerability, and tool code with corresponding instruction. Unlike other security and programming books that dedicate hundreds of pages to architecture and theory based flaws and exploits, Hacking the Code dives right into deep code analysis. Previously undisclosed security research in combination with superior programming techniques from Foundstone and other respected organizations is included in both the Local and Remote Code sections of the book. The book is accompanied with a FREE COMPANION CD containing both commented and uncommented versions of the source code examples presented throughout the book. In addition to the book source code, the CD also contains a copy of the author-developed Hacker Code Library v1.0. The Hacker Code Library includes multiple attack classes and functions that can be utilized to quickly create security programs and scripts. These classes and functions simplify exploit and vulnerability tool development to an extent never before possible with publicly available software. Learn to quickly create security tools that ease the burden of software testing and network administration Find out about key security issues regarding vulnerabilities, exploits, programming flaws, and secure code development Discover the differences in numerous types of web-based attacks so that developers can create proper quality assurance testing procedures and tools Learn to automate quality assurance, management, and development tasks and procedures for testing systems and applications Learn to write complex Snort rules based solely upon traffic generated by network tools and exploits

A Guide to Kernel Exploitation Feb 23 2022 A Guide to Kernel Exploitation: Attacking the Core discusses the theoretical techniques and approaches needed to develop reliable and effective kernel-level exploits, and applies them to different operating systems, namely, UNIX derivatives, Mac OS X, and Windows. Concepts and tactics are presented categorically so that even when a specifically detailed vulnerability has been patched, the foundational information provided will help hackers in writing a newer, better attack; or help pen testers, auditors, and the like develop a more concrete design and defensive structure. The book is organized into four parts. Part I introduces the

kernel and sets out the theoretical basis on which to build the rest of the book. Part II focuses on different operating systems and describes exploits for them that target various bug classes. Part III on remote kernel exploitation analyzes the effects of the remote scenario and presents new techniques to target remote issues. It includes a step-by-step analysis of the development of a reliable, one-shot, remote exploit for a real vulnerabilitya bug affecting the SCTP subsystem found in the Linux kernel. Finally, Part IV wraps up the analysis on kernel exploitation and looks at what the future may hold. Covers a range of operating system families — UNIX derivatives, Mac OS X, Windows Details common scenarios such as generic memory corruption (stack overflow, heap overflow, etc.) issues, logical bugs and race conditions Delivers the reader from user-land exploitation to the world of kernel-land (OS) exploits/attacks, with a particular focus on the steps that lead to the creation of successful techniques, in order to give to the reader something more than just a set of tricks

Cybersecurity Blue Team Toolkit Mar 03 2020 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.

Advanced Windows Debugging Aug 20 2021 The First In-Depth, Real-World, Insider's Guide to Powerful Windows Debugging For Windows developers, few tasks are more challenging than debugging--or more crucial. Reliable and realistic information about Windows debugging has always been scarce. Now, with over 15 years of experience two of Microsoft's system-level developers present a thorough and practical guide to Windows debugging ever written. Mario Hewardt and Daniel Pravat cover debugging throughout the entire application lifecycle and show how to make the most of the tools currently available--including Microsoft's powerful native debuggers and third-party solutions. To help you find real solutions fast, this book is organized around real-world debugging scenarios. Hewardt and Pravat use detailed code examples to illuminate the complex debugging challenges professional developers actually face. From core Windows operating system concepts to security, Windows® Vista™ and 64-bit debugging, they address emerging topics head-on–and nothing is ever oversimplified or glossed over!

Real-World Bug Hunting May 17 2021 Learn how people break websites and how you can, too. Real-World Bug Hunting is the premier field guide to finding software bugs. Whether you're a cyber-security beginner who wants to make the internet safer or a seasoned developer who wants to write secure code, ethical hacker Peter Yaworski will show you how it's done. You'll learn about the most common types of bugs like cross-site scripting, insecure direct object references, and server-side request forgery. Using real-life case studies of rewarded vulnerabilities from applications like Twitter, Facebook, Google, and Uber, you'll see how hackers manage to invoke race conditions while transferring money, use URL parameter to cause users to like unintended tweets, and more. Each chapter introduces a vulnerability type accompanied by a series of actual reported bug bounties. The book's collection of tales from the field will teach you how attackers trick users into giving away their sensitive information and how sites may reveal their vulnerabilities to savvy users. You'll even learn how you could turn your challenging new hobby into a successful career. You'll learn: How the internet works and basic web hacking concepts How attackers compromise websites How to identify functionality commonly associated with vulnerabilities How to find bug bounty programs and submit effective vulnerability reports Real-World Bug Hunting is a fascinating soup-to-nuts primer on web security vulnerabilities, filled with stories from the trenches and practical wisdom. With your new understanding of site security and weaknesses, you can help make the web a safer place--and profit while you're at it.

The Voice Catchers Jun 25 2019 Your voice as biometric data, and how marketers are using it to manipulate you Only three decades ago, it was inconceivable that virtually entire populations would be carrying around wireless phones wherever they went, or that peoples' exact locations could be tracked by those devices. We now take both for granted. Even just a decade ago the idea that individuals' voices could be used to identify and draw inferences about them as they shopped or interacted with retailers seemed like something out of a science fiction novel. Yet a new business sector is emerging to do exactly that. The first in-depth examination of the voice intelligence industry, The Voice Catchers exposes how artificial intelligence is enabling personalized marketing and discrimination through voice analysis. Amazon and Google have numerous patents pertaining to voice profiling, and even now their smart speakers are extracting and using voice prints for identification and more. Customer service centers are already approaching every caller based on what they conclude a caller's voice reveals about that person's emotions, sentiments, and personality, often in real time. In fact, many scientists believe that a person's weight, height, age, and race, not to mention any illnesses they may have, can also be identified from the sound of that individual's voice. Ultimately not only marketers, but also politicians and governments, may use voice profiling to infer personal characteristics for selfish interests and not for the benefit of a citizen or of society as a whole. Leading communications scholar Joseph Turow places the voice intelligence industry in historical perspective, explores its contemporary developments, and offers a clarion call for regulating this rising surveillance regime.

Hackers Beware Oct 29 2019 Explains how and why hackers break into computers, steal information, and deny services to machines' legitimate users, and discusses strategies and tools used by hackers and how to defend against them.

Zero Days, Thousands of Nights Jun 29 2022 Zero-day vulnerabilities—software vulnerabilities for which no patch or fix has been publicly released—and their exploits are useful in cyber operations, as well as in defensive and academic settings. This report provides findings from real-world zero-day vulnerability and exploit data that can inform ongoing policy debates regarding stockpiling (i.e., keeping zero-day vulnerabilities private) versus disclosing them to the public.

Penetration Testing May 05 2020 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.

Exploiting Software: How To Break Code Oct 10 2020

This Is How They Tell Me the World Ends Apr 03 2020 WINNER OF THE FT & McKINSEY BUSINESS BOOK OF THE YEAR AWARD 2021 The instant New York Times bestseller A Financial Times and The Times Book of the Year 'A terrifying exposé' The Times 'Part John le Carré . . . Spellbinding' New Yorker We plug in anything we can to the internet. We can control our entire lives, economy and grid via a remote web control. But over the past decade, as this transformation took place, we never paused to think that we were also creating the world's largest attack surface. And that the same nation that maintains the greatest cyber advantage on earth could also be among its most vulnerable. Filled with spies, hackers, arms dealers and a few unsung heroes, This Is How They Tell Me the World Ends is an astonishing and gripping feat of journalism. Drawing on years of reporting and hundreds of interviews, Nicole Perlroth lifts the curtain on a market in shadow, revealing the urgent threat faced by us all if we cannot bring the global cyber arms race to heel.

Deep Dive Apr 15 2021 Cyber crime is on everyone's lips. It's in the daily news, and every week society gets overwhelmed with information about hacking attacks, industrial espionage, unavailable IT services, and imprisonment of IT criminals. Not least the NSA affair has widely contributed to the "popularity" of headlines about spying out other nations' administrations, companies and citizens. But scarcely anybody understands what a hacker is doing at all. What the heck is hacking actually? This book is a story about exploit development. It demonstrates how a hacker exploits a browser vulnerability, step-by-step. Starting with the crash time analysis of a vulnerable program, the author develops an exploit and shows blow-by-blow how a hacker thinks; what problems come up, and how an attacker can bypass the security protection mechanisms of the operating system. This book is highly technical! The reader is required to have a slightly perverse inclination to read debug messages, memory addresses and assembler instructions. If you're interested in hacking, you will get a quite good understanding about what hacking is in practice. If you're a newbie to Win32 hacking, roll up your sleeves and become a hacker! Learn about shellcode, and how to bypass ASLR and DEP! If you're part of the InfoSec community, have a good reading. This is no theory, this is deep dive!

The Shellcoder's Handbook Oct 02 2022 This much-anticipated revision, written by the ultimate group of top security experts in the world, features 40 percent new content on how to find security holes in any operating system or application New material addresses the many new exploitation techniques that have been discovered since the first edition, including attacking "unbreakable" software packages such as McAfee's Entercept, Mac OS X, XP, Office 2003, and Vista Also features the first-ever published information on exploiting Cisco's IOS, with content that has never before been explored The companion Web site features downloadable code files

A Bug Hunter's Diary Nov 22 2021 Klein tracks down and exploits bugs in some of the world's most popular programs. Whether by browsing source code, poring over disassembly, or fuzzing live programs, readers get an over-the-shoulder glimpse into the world of a bug hunter as Klein unearths security flaws and uses them to take control of affected systems.

Penetration Testing with Shellcode Dec 24 2021 Master Shellcode to leverage the buffer overflow concept Key Features Understand how systems can be bypassed both at the operating system and network level with shellcode, assembly, and Metasploit Learn to write and modify 64-bit shellcode along with kernel-level shellcode concepts A step-by-step guide that will take you from low-level security skills to covering loops with shellcode Book Description Security has always been a major concern for your application, your system, or your environment. This book's main goal is to build your skills for low-level security exploits, finding vulnerabilities and covering loopholes with shellcode, assembly, and Metasploit. This book will teach you topics ranging from memory management and assembly to compiling and extracting shellcode and using syscalls and dynamically locating functions in memory. This book also covers techniques to compile 64-bit shellcode for Linux and Windows along with Metasploit shellcode tools. Lastly, this book will also show you to how to write your own exploits with intermediate techniques, using real-world scenarios. By the end of this book, you will have become an expert in shellcode and will understand how systems are compromised both at the operating system and network level. What you will learn Create an isolated lab to test and inject shellcodes (Windows and Linux). Understand both Windows and Linux behavior. Learn the assembly programming language. Create shellcode using assembly and Metasploit. Detect buffer overflows. Debug and reverse-engineer using tools such as GDB, edb, and Immunity (Windows and Linux). Exploit development and shellcodes injections (Windows & Linux). Prevent and protect against buffer overflows and heap corruption. Who this book is for This book is intended to be read by penetration testers, malware analysts, security researchers, forensic practitioners, exploit developers, C language programmers, software testers, and students in the security field. Readers should have a basic understanding of OS internals (Windows and Linux). Some knowledge of the C programming language is essential, and a familiarity with the Python language would be helpful.

Hacking- The art Of Exploitation Apr 27 2022 This text introduces the spirit and theory of hacking as well as the science behind it all; it also provides some core techniques and tricks of hacking so you can think like a hacker, write your own hacks or thwart potential system attacks.

Adversarial Tradecraft in Cybersecurity Dec 12 2020 Master cutting-edge techniques and countermeasures to protect your organization from live hackers. Learn how to harness cyber deception in your operations to gain an edge over the competition. Key FeaturesGain an advantage against live hackers in a competition or real computing environmentUnderstand advanced red team and blue team techniques with code examplesLearn to battle in short-term memory, whether remaining unseen (red teams) or monitoring an attacker's traffic (blue teams)Book Description Little has been written about what to do when live hackers are on your system and running amok. Even experienced hackers tend to choke up when they realize the network defender has caught them and is zoning in on their implants in real time. This book will provide tips and tricks all along the kill chain of an attack, showing where hackers can have the upper hand in a live conflict and how defenders can outsmart them in this adversarial game of computer cat and mouse. This book contains two subsections in each chapter, specifically focusing on the offensive and defensive teams. It begins by introducing you to adversarial operations and principles of computer conflict where you will explore the core principles of deception, humanity, economy, and more about human-on-human conflicts. Additionally, you will understand everything from planning to setting up infrastructure and tooling that both sides should have in place. Throughout this book, you will learn how to gain an advantage over opponents by disappearing from what they can detect. You will further understand how to blend in, uncover other actors' motivations and means, and learn to tamper with them to hinder their ability to detect your presence. Finally, you will learn how to gain an advantage through advanced research and thoughtfully concluding an operation. By the end of this book, you will have achieved a solid understanding of cyberattacks from both an attacker's and a defender's perspective. What you will learnUnderstand how to implement process injection and how to detect itTurn the tables on the offense with active defenseDisappear on the defender's system, by tampering with defensive sensorsUpskill in using deception with your backdoors and countermeasures including honeypotsKick someone else from a computer you are on and gain the upper handAdopt a language agnostic approach to become familiar with techniques that can be applied to both the red and blue teamsPrepare yourself for real-time cybersecurity conflict by using some of the best techniques currently in the industryWho this book is for Pentesters to red teamers, security operations center analysts to incident responders, attackers, defenders, general hackers, advanced computer users, and security engineers will benefit from this book. Participants in purple teaming or adversarial simulations will also learn a lot from its practical examples of processes for gaining an advantage over the opposing team. Basic knowledge of Python, Go, Bash, PowerShell, system administration as well as knowledge of incident response in Linux and prior exposure to any kind of cybersecurity knowledge, penetration testing, and ethical hacking basics will help you follow along.

Black Hat Go Sep 20 2021 Like the best-selling Black Hat Python, Black Hat Go explores the darker side of the popular Go programming language. This collection of short scripts will help you test your systems, build and automate tools to fit your needs, and improve your offensive security skillset. Black Hat Go explores the darker side of Go, the popular programming language revered by hackers for its simplicity, efficiency, and reliability. It provides an arsenal of practical tactics from the perspective of security practitioners and hackers to help you test your systems, build and automate tools to fit your needs, and improve your offensive security skillset, all using the power of Go.

You'll begin your journey with a basic overview of Go's syntax and philosophy and then start to explore examples that you can leverage for tool development, including common network protocols like HTTP, DNS, and SMB. You'll then dig into various tactics and problems that penetration testers encounter, addressing things like data pilfering, packet sniffing, and exploit development. You'll create dynamic, pluggable tools before diving into cryptography, attacking Microsoft Windows, and implementing steganography. You'll learn how to: • Make performant tools that can be used for your own security projects • Create usable tools that interact with remote APIs • Scrape arbitrary HTML data • Use Go's standard package, net/http, for building HTTP servers • Write your own DNS server and proxy • Use DNS tunneling to establish a C2 channel out of a restrictive network • Create a vulnerability fuzzer to discover an application's security weaknesses • Use plug-ins and extensions to future-proof productsBuild an RC2 symmetric-key brute-forcer • Implant data within a Portable Network Graphics (PNG) image. Are you ready to add to your arsenal of security tools? Then let's Go!

Zero-Day Exploit: Jul 31 2022 The realistic portrayals of researching, developing, and ultimately defending the Internet from a malicious "Zero-Day" attack will appeal to every corner of the IT community. Although finctional, the numerous accounts of real events and references to real people will ring true with every member of the security community. This book will also satisfy those not on the "inside" of this community, who are fascinated by the real tactics and motives of criminal, malicous hackers and those who defent the Internet from them. * The realistic portrayals of researching, developing, and ultimately defending the Internet from a malicious "Zero-Day" attack will appeal to every corner of the IT community. * This book will entertain, educate, and enlighten the security and IT community about the world of elite security professionals who safeguard the Internet from the most dangerous cyber criminals and terrorists. * Although finctional, the numerous accounts of real events and references to real people will ring true with every member of the security community.

Buffer Overflow Attacks May 29 2022 The SANS Institute maintains a list of the "Top 10 Software Vulnerabilities." At the current time, over half of these vulnerabilities are exploitable by Buffer Overflow attacks, making this class of attack one of the most common and most dangerous weapon used by malicious attackers. This is the first book specifically aimed at detecting, exploiting, and preventing the most common and dangerous attacks. Buffer overflows make up one of the largest collections of vulnerabilities in existence; And a large percentage of possible remote exploits are of the overflow variety. Almost all of the most devastating computer attacks to hit the Internet in recent years including SQL Slammer, Blaster, and I Love You attacks. If executed properly, an overflow vulnerability will allow an attacker to run arbitrary code on the victim's machine with the equivalent rights of whichever process was overflowed. This is often used to provide a remote shell onto the victim machine, which can be used for further exploitation. A buffer overflow is an unexpected

behavior that exists in certain programming languages. This book provides specific, real code examples on exploiting buffer overflow attacks from a hacker's perspective and defending against these attacks for the software developer. Over half of the "SANS TOP 10 Software Vulnerabilities" are related to buffer overflows. None of the current-best selling software security books focus exclusively on buffer overflows. This book provides specific, real code examples on exploiting buffer overflow attacks from a hacker's perspective and defending against these attacks for the software developer.

Violent Python Sep 01 2022 Violent Python shows you how to move from a theoretical understanding of offensive computing concepts to a practical implementation. Instead of relying on another attacker's tools, this book will teach you to forge your own weapons using the Python programming language. This book demonstrates how to write Python scripts to automate large-scale network attacks, extract metadata, and investigate forensic artifacts. It also shows how to write code to intercept and analyze network traffic using Python, craft and spoof wireless frames to attack wireless and Bluetooth devices, and how to data-mine popular social media websites and evade modern anti-virus. Demonstrates how to write Python scripts to automate large-scale network attacks, extract metadata, and investigate forensic artifacts Write code to intercept and analyze network traffic using Python. Craft and spoof wireless frames to attack wireless and Bluetooth devices Data-mine popular social media websites and evade modern anti-virus

Mapping Vulnerability Jun 17 2021 Raging floods, massive storms and cataclysmic earthquakes: every year up to 340 million people are affected by these and other disasters, which cause loss of life and damage to personal property, agriculture, and infrastructure. So what can be done? The key to understanding the causes of disasters and mitigating their impacts is the concept of 'vulnerability'. Mapping Vulnerability analyses 'vulnerability' as a concept central to the way we understand disasters and their magnitude and impact. Written and edited by a distinguished group of disaster scholars and practitioners, this book is a counterbalance to those technocratic approaches that limit themselves to simply looking at disasters as natural phenomena. Through the notion of vulnerability, the authors stress the importance of social processes and human-environmental interactions as causal agents in the making of disasters. They critically examine what renders communities unsafe - a condition, they argue, that depends primarily on the relative position of advantage or disadvantage that a particular group occupies within a society's social order. The book also looks at vulnerability in terms of its relationship to development and its impact on policy and people's lives, through consideration of selected case studies drawn from Africa, Asia and Latin America. Mapping Vulnerability is essential reading for academics, students, policymakers and practitioners in disaster studies, geography, development studies, economics, environmental studies and sociology.

Reversing Oct 22 2021 Beginning with a basic primer on reverse engineering-including computer internals, operating systems, and assembly language-and then discussing the various applications of

reverse engineering, this book provides readers with practical, in-depth techniques for software reverse engineering. The book is broken into two parts, the first deals with security-related reverse engineering and the second explores the more practical aspects of reverse engineering. In addition, the author explains how to reverse engineer a third-party software library to improve interfacing and how to reverse engineer a competitor's software to build a better product. * The first popular book to show how software reverse engineering can help defend against security threats, speed up development, and unlock the secrets of competitive products * Helps developers plug security holes by demonstrating how hackers exploit reverse engineering techniques to crack copy-protection schemes and identify software targets for viruses and other malware * Offers a primer on advanced reverse-engineering, delving into "disassembly"-code-level reverse engineering-and explaining how to decipher assembly language

Hands-On Penetration Testing with Python Nov 30 2019 Implement defensive techniques in your ecosystem successfully with Python Key FeaturesIdentify and expose vulnerabilities in your infrastructure with PythonLearn custom exploit development .Make robust and powerful cybersecurity tools with PythonBook Description With the current technological and infrastructural shift, penetration testing is no longer a process-oriented activity. Modern-day penetration testing demands lots of automation and innovation; the only language that dominates all its peers is Python. Given the huge number of tools written in Python, and its popularity in the penetration testing space, this language has always been the first choice for penetration testers. Hands-On Penetration Testing with Python walks you through advanced Python programming constructs. Once you are familiar with the core concepts, you'll explore the advanced uses of Python in the domain of penetration testing and optimization. You'll then move on to understanding how Python, data science, and the cybersecurity ecosystem communicate with one another. In the concluding chapters, you'll study exploit development, reverse engineering, and cybersecurity use cases that can be automated with Python. By the end of this book, you'll have acquired adequate skills to leverage Python as a helpful tool to pentest and secure infrastructure, while also creating your own custom exploits. What you will learnGet to grips with Custom vulnerability scanner developmentFamiliarize yourself with web application scanning automation and exploit developmentWalk through day-to-day cybersecurity scenarios that can be automated with PythonDiscover enterprise-or organization-specific use cases and threat-hunting automationUnderstand reverse engineering, fuzzing, buffer overflows , key-logger development, and exploit development for buffer overflows.Understand web scraping in Python and use it for processing web responsesExplore Security Operations Centre (SOC) use casesGet to understand Data Science, Python, and cybersecurity all under one hoodWho this book is for If you are a security consultant , developer or a cyber security enthusiast with little or no knowledge of Python and want in-depth insight into how the pen-testing ecosystem and python combine to create offensive

tools , exploits , automate cyber security use-cases and much more then this book is for you. Hands-On Penetration Testing with Python guides you through the advanced uses of Python for cybersecurity and pen-testing, helping you to better understand security loopholes within your infrastructure .

Network Security Assessment Feb 11 2021 A practical handbook for network adminstrators who need to develop and implement security assessment programs, exploring a variety of offensive technologies, explaining how to design and deploy networks that are immune to offensive tools and scripts, and detailing an efficient testing model. Original. (Intermediate)

Heat Pump Controls to Exploit the Energy Flexibility of Building Thermal Loads Sep 28 2019 This book describes different control strategies adapted to heat pumps, at the purpose of increasing energy flexibility in buildings. It reports on the development of both simple rule-based controls (RBC) and advanced model predictive controls (MPC). These are tested and compared in both simulation and experimental setups. The book analyzes in detail all the different steps, including the development and tuning of the controllers, their testing in experimental settings and simulation studies. Bridging between advanced control systems theory concepts and practical needs, and discussing the advantages and main challenges of MPC and RBC controllers in terms of efficiency of heat pump operation, electricity prices, emission values, and users' comfort, this book offers an in-depth evaluation of innovative control strategies applied to energy demand management in buildings.

Metasploit Toolkit for Penetration Testing, Exploit Development, and Vulnerability Research Nov 03 2022 Metasploit Toolkit for Penetration Testing, Exploit Development, and Vulnerability Research is the first book available for the Metasploit Framework (MSF), which is the attack platform of choice for one of the fastest growing careers in IT security: Penetration Testing. The book will provide professional penetration testers and security researchers with a fully integrated suite of tools for discovering, running, and testing exploit code. This book discusses how to use the Metasploit Framework (MSF) as an exploitation platform. The book begins with a detailed discussion of the three MSF interfaces: msfweb, msfconsole, and msfcli .This chapter demonstrates all of the features offered by the MSF as an exploitation platform. With a solid understanding of MSF's capabilities, the book then details techniques for dramatically reducing the amount of time required for developing functional exploits. By working through a real-world vulnerabilities against popular closed source applications, the reader will learn how to use the tools and MSF to quickly build reliable attacks as standalone exploits. The section will also explain how to integrate an exploit directly into the Metasploit Framework by providing a line-by-line analysis of an integrated exploit module. Details as to how the Metasploit engine drives the behind-the-scenes exploitation process will be covered, and along the way the reader will come to understand the advantages of exploitation frameworks. The final section of the book examines the Meterpreter payload system and teaches readers to develop completely new extensions that will integrate fluidly with the Metasploit Framework. A November 2004 survey conducted by "CSO Magazine" stated that 42% of chief security officers considered penetration testing to be a security priority for their organizations The Metasploit Framework is the most popular open source exploit platform, and there are no competing books

Zero Days, Thousands of Nights Mar 27 2022 Zero-day vulnerabilities--software vulnerabilities for which no patch or fix has been publicly released-- and their exploits are useful in cyber operations--whether by criminals, militaries, or governments--as well as in defensive and academic settings. This report provides findings from real-world zero-day vulnerability and exploit data that could augment conventional proxy examples and expert opinion, complement current efforts to create a framework for deciding whether to disclose or retain a cache of zero-day vulnerabilities and exploits, inform ongoing policy debates regarding stockpiling and vulnerability disclosure, and add extra context for those examining the implications and resulting liability of attacks and data breaches for U.S. consumers, companies, insurers, and for the civil justice system broadly. The authors provide insights about the zero-day vulnerability research and exploit development industry; give information on what proportion of zero-day vulnerabilities are alive (undisclosed), dead (known), or somewhere in between; and establish some baseline metrics regarding the average lifespan of zero-day vulnerabilities, the likelihood of another party discovering a vulnerability within a given time period, and the time and costs involved in developing an exploit for a zero-day vulnerability"--Publisher's description.

Secure Programming with Static Analysis Jul 07 2020 The First Expert Guide to Static Analysis for Software Security! Creating secure code requires more than just good intentions. Programmers need to know that their code will be safe in an almost infinite number of scenarios and configurations. Static source code analysis gives users the ability to review their work with a fine-toothed comb and uncover the kinds of errors that lead directly to security vulnerabilities. Now, there's a complete guide to static analysis: how it works, how to integrate it into the software development processes, and how to make the most of it during security code review. Static analysis experts Brian Chess and Jacob West look at the most common types of security defects that occur today. They illustrate main points using Java and C code examples taken from real-world security incidents, showing how coding errors are exploited, how they could have been prevented, and how static analysis can rapidly uncover similar mistakes. This book is for everyone concerned with building more secure software: developers, security engineers, analysts, and testers.

iOS Hacker's Handbook Jul 19 2021 Discover all the security risks and exploits that can threateniOS-based mobile devices iOS is Apple's mobile operating system for the iPhone and iPad.With the introduction of iOS5, many security issues have come tolight. This book explains and discusses them all. The award-winningauthor team, experts in Mac and iOS security, examines thevulnerabilities and the internals of iOS to show how attacks can bemitigated. The book explains how the operating system works, itsoverall security architecture, and the security risks associatedwith it, as well as exploits, rootkits, and other payloadsdeveloped for it. Covers iOS security architecture, vulnerability hunting,exploit writing, and how iOS jailbreaks work Explores iOS enterprise and encryption, code signing and memoryprotection, sandboxing, iPhone fuzzing, exploitation, ROP payloads,and baseband attacks Also examines kernel debugging and exploitation Companion website includes source code and tools to facilitateyour efforts iOS Hacker's Handbook arms you with the tools needed toidentify, understand, and foil iOS attacks.

Secure Coding in C and C++ Jan 13 2021 "The security of information systems has not improved at a rate consistent with the growth and sophistication of the attacks being made against them. To address this problem, we must improve the underlying strategies and techniques used to create our systems. Specifically, we must build security in from the start, rather than append it as an afterthought. That's the point of Secure Coding in C and C++. In careful detail, this book shows software developers how to build high-quality systems that are less vulnerable to costly and even catastrophic attack. It's a book that every developer should read before the start of any serious project." --Frank Abagnale, author, lecturer, and leading consultant on fraud prevention and secure documents Learn the Root Causes of Software Vulnerabilities and How to Avoid Them Commonly exploited software vulnerabilities are usually caused by avoidable software defects. Having analyzed nearly 18,000 vulnerability reports over the past ten years, the CERT/Coordination Center (CERT/CC) has determined that a relatively small number of root causes account for most of them. This book identifies and explains these causes and shows the steps that can be taken to prevent exploitation. Moreover, this book encourages programmers to adopt security best practices and develop a security mindset that can help protect software from tomorrow's attacks, not just today's. Drawing on the CERT/CC's reports and conclusions, Robert Seacord systematically identifies the program errors most likely to lead to security breaches, shows how they can be exploited, reviews the potential consequences, and presents secure alternatives. Coverage includes technical detail on how to Improve the overall security of any C/C++ application Thwart buffer overflows and stack-smashing attacks that exploit insecure string manipulation logic Avoid vulnerabilities and security flaws resulting from the incorrect use of dynamic memory management functions Eliminate integer-related problems: integer overflows, sign errors, and truncation errors Correctly use formatted output functions without introducing format-string vulnerabilities Avoid I/O vulnerabilities, including race conditions Secure Coding in C and C++ presents hundreds of examples of secure code, insecure code, and exploits, implemented for Windows and Linux. If you're responsible for creating secure C or C++ software--or for keeping it safe--no other book offers you this much detailed, expert assistance.