Computer Forensics Study Guide

Windows Registry Forensics provides the background of the Windows Registry to help develop an understanding of the binary structure of Registry hive files. Approaches to live response and analysis are included, and tools and techniques for postmortem analysis are discussed at length. Tools and techniques are presented that take the student and analyst beyond the current use of viewers and into real analysis of data contained in the Registry, demonstrating the forensic value of the Registry. Named a 2011 Best Digital Forensics Book by InfoSec Reviews, this book is packed with real-world examples using freely available open source tools. It also includes case studies and a CD containing code and author-created tools discussed in the book. This book will appeal to computer forensic and incident response professionals, including federal government and commercial/private sector contractors, consultants, etc. Named a 2011 Best Digital Forensics Book by InfoSec Reviews Packed with real-world examples using freely available open source tools Deep explanation and understanding of the Windows Registry – the most difficult part of Windows to analyze forensically Includes a CD containing code and author-created tools discussed in the book
Get complete coverage of all six CCFP exam domains developed by the International Information Systems Security Certification Consortium (ISC)2. Written by a leading computer security expert, this authoritative guide fully addresses cyber forensics techniques, standards, technologies, and legal and ethical principles. You'll find learning objectives at the beginning of each chapter, exam tips, practice exam questions, and in-depth explanations. Designed to help you pass the exam with ease, this definitive volume also serves as an essential on-the-job reference. COVERS ALL SIX EXAM DOMAINS: Legal and ethical principles Investigations Forensic science Digital forensics Application forensics Hybrid and emerging technologies ELECTRONIC CONTENT INCLUDES: 250 practice exam questions Test engine that provides full-length practice exams and customized quizzes by chapter or by exam domain
EnCE certification tells the world that you've not only mastered the use of EnCase Forensic Software, but also that you have acquired the in-depth forensics knowledge and techniques you need to conduct complex computer examinations. This official study guide, written by a law enforcement professional who is an expert in EnCE and computer forensics, provides the complete instruction, advanced testing software, and solid techniques you need to prepare for the exam. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.
EnCE certification tells the world that you've not only mastered the use of EnCase Forensic Software, but also that you have acquired the in-depth forensics knowledge and techniques you need to conduct complex computer examinations. This official study guide, written by a law enforcement professional who is an expert in EnCE and computer forensics, provides the complete instruction, advanced testing software, and solid techniques you need to prepare for the exam.
PART OF THE NEW JONES & BARTLETT LEARNING INFORMATION SYSTEMS SECURITY & ASSURANCE SERIES Completely revised and rewritten to keep pace with the fast-paced field of Computer Forensics! Computer crimes call for forensics specialists, people who know how to find and follow the evidence. System Forensics, Investigation, and Response, Second Edition begins by examining the fundamentals of system forensics, such as what forensics is, the role of computer forensics specialists, computer forensic evidence, and application of forensic analysis skills. It also gives an overview of computer crimes, forensic methods, and laboratories. It then addresses the tools, techniques, and methods used to perform computer forensics and investigation. Finally, it explores emerging technologies as well as future directions of this interesting and cutting-edge field. New and Key Features of the Second Edition: Examines the fundamentals of system forensics Discusses computer crimes

and forensic methods Written in an accessible and engaging style Incorporates real-world examples and engaging cases Instructor Materials for System Forensics, Investigation, and Response include: PowerPoint Lecture Slides Exam Questions Case Scenarios/Handouts Instructor's Manual

Given our increasing dependency on computing technology in daily business processes, and the growing opportunity to use engineering technologies to engage in illegal, unauthorized, and unethical acts aimed at corporate infrastructure, every organization is at risk. Cyber Forensics: A Field Manual for Collecting, Examining, and Preserving Evidence o

Mobile devices are ubiquitous; therefore, mobile device forensics is absolutely critical. Whether for civil or criminal investigations, being able to extract evidence from a mobile device is essential. This book covers the technical details of mobile devices and transmissions, as well as forensic methods for extracting evidence. There are books on specific issues like Android forensics or iOS forensics, but there is not currently a book that covers all the topics covered in this book. Furthermore, it is such a critical skill that mobile device forensics is the most common topic the Author is asked to teach to law enforcement. This is a niche that is not being adequately filled with current titles. An In-Depth Guide to Mobile Device Forensics is aimed towards undergraduates and graduate students studying cybersecurity or digital forensics. It covers both technical and legal issues, and includes exercises, tests/quizzes, case studies, and slides to aid comprehension.

The evidence is in--to solve Windows crime, you need Windows tools An arcane pursuit a decade ago, forensic science today is a household term. And while the computer forensic analyst may not lead as exciting a life as TV's CSIs do, he or she relies just as heavily on scientific principles and just as surely solves crime. Whether you are contemplating a career in this growing field or are already an analyst in a Unix/Linux environment, this book prepares you to combat computer crime in the Windows world. Here are the tools to help you recover sabotaged files, track down the source of threatening e-mails, investigate industrial espionage, and expose computer criminals. * Identify evidence of fraud, electronic theft, and employee Internet abuse * Investigate crime related to instant messaging, Lotus Notes(r), and increasingly popular browsers such as Firefox(r) * Learn what it takes to become a computer forensics analyst * Take advantage of sample forms and layouts as well as case studies * Protect the integrity of evidence * Compile a forensic response toolkit * Assess and analyze damage from computer crime and process the crime scene * Develop a structure for effectively conducting investigations * Discover how to locate evidence in the Windows Registry

The Definitive, Up-to-Date Guide to Digital Forensics The rapid proliferation of cyber crime is increasing the demand for digital forensics experts in both law enforcement and in the private sector. In Digital Archaeology, expert practitioner Michael Graves has written the most thorough, realistic, and up-to-date guide to the principles and techniques of modern digital forensics. Graves begins by providing a solid understanding of the legal underpinnings of and critical laws affecting computer forensics, including key principles of evidence and case law. Next, he explains how to systematically and thoroughly investigate computer systems to unearth crimes or other misbehavior, and back it up with evidence that will stand up in court. Drawing on the analogy of archaeological research, Graves explains each key tool and method investigators use to reliably uncover hidden information in digital systems. His detailed demonstrations often include the actual syntax of command-line utilities. Along the way, he presents exclusive coverage of facilities management, a full chapter on the crucial topic of first

response to a digital crime scene, and up-to-the-minute coverage of investigating evidence in the cloud. Graves concludes by presenting coverage of important professional and business issues associated with building a career in digital forensics, including current licensing and certification requirements. Topics Covered Include Acquiring and analyzing data in ways consistent with forensic procedure Recovering and examining e-mail, Web, and networking activity Investigating users' behavior on mobile devices Overcoming anti-forensics measures that seek to prevent data capture and analysis Performing comprehensive electronic discovery in connection with lawsuits Effectively managing cases and documenting the evidence you find Planning and building your career in digital forensics Digital Archaeology is a key resource for anyone preparing for a career as a professional investigator; for IT professionals who are sometimes called upon to assist in investigations; and for those seeking an explanation of the processes involved in preparing an effective defense, including how to avoid the legally indefensible destruction of digital evidence.

The emergence of the World Wide Web, smartphones, and Computer-Mediated Communications (CMCs) profoundly affect the way in which people interact online and offline. Individuals who engage in socially unacceptable or outright criminal acts increasingly utilize technology to connect with one another in ways that are not otherwise possible in the real world due to shame, social stigma, or risk of detection. As a consequence, there are now myriad opportunities for wrongdoing and abuse through technology. This book offers a comprehensive and integrative introduction to cybercrime. It is the first to connect the disparate literature on the various types of cybercrime, the investigation and detection of cybercrime and the role of digital information, and the wider role of technology as a facilitator for social relationships between deviants and criminals. It includes coverage of: key theoretical and methodological perspectives, computer hacking and digital piracy, economic crime and online fraud, pornography and online sex crime, cyber-bulling and cyber-stalking, cyber-terrorism and extremism, digital forensic investigation and its legal context, cybercrime policy. This book includes lively and engaging features, such as discussion questions, boxed examples of unique events and key figures in offending, quotes from interviews with active offenders and a full glossary of terms. It is supplemented by a companion website that includes further students exercises and instructor resources. This text is essential reading for courses on cybercrime, cyber-deviancy, digital forensics, cybercrime investigation and the sociology of technology.

This book primarily focuses on providing deep insight into the concepts of network security, network forensics, botnet forensics, ethics and incident response in global perspectives. It also covers the dormant and contentious issues of the subject in most scientific and objective manner. Various case studies addressing contemporary network forensics issues are also included in this book to provide practical know – how of the subject. Network Forensics: A privacy & Security provides a significance knowledge of network forensics in

different functions and spheres of the security. The book gives the complete knowledge of network security, all kind of network attacks, intention of an attacker, identification of attack, detection, its analysis, incident response, ethical issues, botnet and botnet forensics. This book also refer the recent trends that comes under network forensics. It provides in-depth insight to the dormant and latent issues of the acquisition and system live investigation too. Features: Follows an outcome-based learning approach. A systematic overview of the state-of-the-art in network security, tools, Digital forensics. Differentiation among network security, computer forensics, network forensics and botnet forensics. Discussion on various cybercrimes, attacks and cyber terminologies. Discussion on network forensics process model. Network forensics tools and different techniques Network Forensics analysis through case studies. Discussion on evidence handling and incident response. System Investigations and the ethical issues on network forensics. This book serves as a reference book for post graduate and research investigators who need to study in cyber forensics. It can also be used as a textbook for a graduate level course in Electronics & Communication, Computer Science and Computer Engineering.

Every computer crime leaves tracks–you just have to know where to find them. This book shows you how to collect and analyze the digital evidence left behind in a digital crime scene. Computers have always been susceptible to unwanted intrusions, but as the sophistication of computer technology increases so does the need to anticipate, and safeguard against, a corresponding rise in computer-related criminal activity. Computer forensics, the newest branch of computer security, focuses on the aftermath of a computer security incident. The goal of computer forensics is to conduct a structured investigation to determine exactly what happened, who was responsible, and to perform the investigation in such a way that the results are useful in a criminal proceeding. Written by two experts in digital investigation, Computer Forensics provides extensive information on how to handle the computer as evidence. Kruse and Heiser walk the reader through the complete forensics process–from the initial collection of evidence through the final report. Topics include an overview of the forensic relevance of encryption, the examination of digital evidence for clues, and the most effective way to present your evidence and conclusions in court. Unique forensic issues associated with both the Unix and the Windows NT/2000 operating systems are thoroughly covered. This book provides a detailed methodology for collecting, preserving, and effectively using evidence by addressing the three A's of computer forensics: Acquire the evidence without altering or damaging the original data. Authenticate that your recorded evidence is the same as the original seized data. Analyze the data without modifying the recovered data. Computer Forensics is written for everyone who is responsible for investigating digital criminal incidents or who may be interested in the techniques that such investigators use. It is equally helpful to those investigating hacked web servers, and those who are investigating the source of illegal pornography.

Updated with the latest advances from the field, GUIDE TO COMPUTER FORENSICS AND INVESTIGATIONS, Fifth Edition combines all-encompassing topic coverage and authoritative information from seasoned experts to deliver the most comprehensive forensics resource available. This proven author team's wide ranging areas of expertise mirror the breadth of coverage provided in the book, which focuses on techniques and practices for gathering and analyzing evidence used to solve crimes involving computers. Providing clear instruction on the tools and techniques of the trade, it introduces readers to every step of the computer forensics investigation-from lab set-up to testifying in court. It also details step-by-step guidance on how to use current forensics software. Appropriate for learners new to the field, it is also an excellent refresher and technology update for professionals in law enforcement, investigations, or computer security. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Never HIGHLIGHT a Book Again Includes all testable terms, concepts, persons, places, and events. Cram101 Just the FACTS101 studyguides gives all of the outlines, highlights, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanies: 9780872893795. This item is printed on demand.

The X-Ways Forensics Practitioner's Guide is more than a manual-it's a complete reference guide to the full use of one of the most powerful forensic applications available, software that is used by a wide array of law enforcement agencies and private forensic examiners on a daily basis. In the X-Ways Forensics Practitioner's Guide, the authors provide you with complete coverage of this powerful tool, walking you through configuration and X-Ways fundamentals, and then moving through case flow, creating and importing hash databases, digging into OS artifacts, and conducting searches. With X-Ways Forensics Practitioner's Guide, you will be able to use X-Ways Forensics to its fullest potential without any additional training. The book takes you from installation to the most advanced features of the software. Once you are familiar with the basic components of X-Ways, the authors demonstrate never-before-documented features using real life examples and information on how to present investigation results. The book culminates with chapters on reporting, triage and preview methods, as well as electronic discovery and cool X-Ways apps. Provides detailed explanations of the complete forensic investigation processe using X-Ways Forensics. Goes beyond the basics: hands-on case demonstrations of never-before-documented features of X-Ways. Provides the best resource of hands-on information to use X-Ways Forensics.

Bestselling author of Broken Ground “offers fascinating glimpses” into the real world of criminal forensics from its beginnings to the modern day (The Boston Globe). The dead can tell us all about themselves: where they came from, how they lived, how they died, and, of course, who killed them. Using the messages left by a corpse, a crime scene, or the faintest of human traces, forensic

scientists unlock the mysteries of the past and serve justice. In Forensics, international bestselling crime author Val McDermid guides readers through this field, drawing on interviews with top-level professionals, ground-breaking research, and her own experiences on the scene. Along the way, McDermid discovers how maggots collected from a corpse can help determine one's time of death; how a DNA trace a millionth the size of a grain of salt can be used to convict a killer; and how a team of young Argentine scientists led by a maverick American anthropologist were able to uncover the victims of a genocide. Prepare to travel to war zones, fire scenes, and autopsy suites as McDermid comes into contact with both extraordinary bravery and wickedness, tracing the history of forensics from its earliest beginnings to the cutting-edge science of the modern day.

A Practical Guide to Computer Forensics Investigations introduces the newest technologies along with detailed information on how the evidence contained on these devices should be analyzed. Packed with practical, hands-on activities, students will learn unique subjects from chapters including Mac Forensics, Mobile Forensics, Cyberbullying, and Child Endangerment. This well-developed book will prepare students for the rapidly-growing field of computer forensics for a career with law enforcement, accounting firms, banks and credit card companies, private investigation companies, or government agencies.

Digital Forensic Art Techniques: A Professional's Guide to Corel PainterTM illustrates hands-on techniques to digitally create forensic art for police and investigative purposes. Coverage focuses specifically on how to utilize the software to create realistic human likenesses, including composites of suspects and drawings of persons in unidentified remains cases. Drawing digitally is like using any tool in art: a pencil, a charcoal stick, a conte' crayon. A stylus is just another tool to master. Digital work is easier for artists to send to the case detective, and the work always reproduces exactly as it was completed. Another benefit to working digitally is that one can use video conferencing with a witness online to provide services remotely world-wide. This enables police departments who have never had access to a forensic artist to have a sketch done within hours of the crime. Chapters address the more basic functions to serve as a primer for those transitioning to working digitally. There is also instruction on light and shadow, and bones and muscles of the skull. All of the discussion is intended to make the reader see things as an artist to improve drawing skills and overall digital techniques. In short, Digital Forensic Art Techniques is a practical, easy-to-follow manual for working forensic artists that will give readers a solid base from which to start. It serves as an essential resource to greater skill and comfort with the hardware and software, thus furthering current best practices and technological advances in the field.

The field of computer forensics has experienced significant growth recently and those looking to get into the industry have significant opportunity for upward mobility. Focusing on the concepts investigators need to know to conduct a

thorough investigation, Digital Forensics Explained provides an overall description of the forensic practice from a practitioner's perspective. Starting with an overview, the text describes best practices based on the author's decades of experience conducting investigations and working in information technology. It illustrates the forensic process, explains what it takes to be an investigator, and highlights emerging trends. Filled with helpful templates and contributions from seasoned experts in their respective fields, the book includes coverage of: Internet and email investigations Mobile forensics for cell phones, iPads, music players, and other small devices Cloud computing from an architecture perspective and its impact on digital forensics Anti-forensic techniques that may be employed to make a forensic exam more difficult to conduct Recoverability of information from damaged media The progression of a criminal case from start to finish Tools that are often used in an examination, including commercial, free, and open-source tools; computer and mobile tools; and things as simple as extension cords Social media and social engineering forensics Case documentation and presentation, including sample summary reports and a cover sheet for a cell phone investigation The text includes acquisition forms, a sequential process outline to guide your investigation, and a checklist of supplies you'll need when responding to an incident. Providing you with the understanding and the tools to deal with suspects who find ways to make their digital activities hard to trace, the book also considers cultural implications, ethics, and the psychological effects that digital forensics investigations can have on investigators.

Never HIGHLIGHT a Book Again! Virtually all of the testable terms, concepts, persons, places, and events from the textbook are included. Cram101 Just the FACTS101 studyguides give all of the outlines, highlights, notes, and quizzes for your textbook with optional online comprehensive practice tests. Only Cram101 is Textbook Specific. Accompanys: 9780073378152 .

Computer forensics (sometimes computer forensic science) is a branch of digital forensic science pertaining to legal evidence found in computers and digital storage media. The goal of computer forensics is to examine digital media in a forensically sound manner with the aim of preserving, recovering, analyzing and presenting facts and opinions about the information. Although it is most often associated with the investigation of a wide variety of computer crime, computer forensics may also be used in civil proceedings. The discipline involves similar techniques and principles to data recovery, but with additional guidelines and practices designed to create a legal audit trail. Evidence from computer forensics investigations is usually subjected to the same guidelines and practices of other digital evidence. It has been used in a number of high profile cases and is becoming widely accepted as reliable within US and European court systems. A leading computer forensics certification is the GIAC Certified Forensic Analyst (GCFA) certification from the Global Information Assurance Certification organization. There are currently over 2100 GCFA certified individuals. This self-

study exam preparation guide for the GCFA certification exam contains everything you need to test yourself and pass the Exam. All Exam topics are covered and insider secrets, complete explanations of all GCFA subjects, test tricks and tips, numerous highly realistic sample questions, and exercises designed to strengthen understanding of GCFA concepts and prepare you for exam success on the first attempt are provided. Put your knowledge and experience to the test. Achieve GCFA certification and accelerate your career. Can you imagine valuing a book so much that you send the author a "Thank You" letter? Tens of thousands of people understand why this is a worldwide best-seller. Is it the authors years of experience? The endless hours of ongoing research? The interviews with those who failed the exam, to identify gaps in their knowledge? Or is it the razor-sharp focus on making sure you don't waste a single minute of your time studying any more than you absolutely have to? Actually, it's all of the above. This book includes new exercises and sample questions never before in print. Offering numerous sample questions, critical time-saving tips plus information available nowhere else, this book will help you pass the GCFA exam on your FIRST try. Up to speed with the theory? Buy this. Read it. And Pass the GCFA Exam.

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.

This is the official CHFI (Computer Hacking Forensics Investigator) study guide for professionals studying for the forensics exams and for professionals needing the skills to identify an intruder's footprints and properly gather the necessary evidence to prosecute. The EC-Council offers certification for ethical hacking and computer forensics. Their ethical hacker exam has become very popular as an industry gauge and we expect the forensics exam to follow suit. Material is presented in a logical learning sequence: a section builds upon previous sections and a chapter on previous chapters. All concepts, simple and complex, are defined and explained when they appear for the first time. This book includes: Exam objectives covered in a chapter are clearly explained in the beginning of the chapter, Notes and Alerts highlight crucial points, Exam’s Eye View emphasizes the important points from the exam’s perspective, Key Terms present definitions of key terms used in the chapter, Review Questions contains the questions modeled after real exam questions based on the material covered in the chapter. Answers to the questions are presented with explanations. Also included is a full practice exam modeled after the real exam. The only study guide for CHFI, provides 100% coverage of all exam objectives. CHFI Training runs hundreds of dollars for self tests to thousands of dollars for classroom training.

The Basics of Digital Forensics provides a foundation for people new to the digital forensics field. This book teaches you how to conduct examinations by discussing what digital forensics is, the methodologies used, key tactical concepts, and the tools needed to perform examinations. Details on digital forensics for computers, networks, cell phones, GPS, the cloud and the Internet are discussed. Also, learn how to collect evidence, document the scene, and how deleted data can be recovered. The new Second Edition of this book provides you with completely up-to-date real-world examples and all the key technologies used in digital forensics, as well as new coverage of network intrusion response, how hard drives are organized, and electronic discovery. You'll also learn how to incorporate quality assurance into an investigation, how to prioritize evidence items to examine (triage), case processing, and what goes into making an expert witness. The Second Edition also features expanded resources and references, including online resources that keep you current, sample legal documents, and suggested further reading. Learn what Digital Forensics entails Build a toolkit and prepare an investigative plan Understand the common artifacts to look for in an

exam Second Edition features all-new coverage of hard drives, triage, network intrusion response, and electronic discovery; as well as updated case studies, expert interviews, and expanded resources and references

Uncover a digital trail of e-evidence by using the helpful, easy-to-understand information in Computer Forensics For Dummies! Professional and armchair investigators alike can learn the basics of computer forensics, from digging out electronic evidence to solving the case. You won't need a computer science degree to master e-discovery. Find and filter data in mobile devices, e-mail, and other Web-based technologies. You'll learn all about e-mail and Web-based forensics, mobile forensics, passwords and encryption, and other e-evidence found through VoIP, voicemail, legacy mainframes, and databases. You'll discover how to use the latest forensic software, tools, and equipment to find the answers that you're looking for in record time. When you understand how data is stored, encrypted, and recovered, you'll be able to protect your personal privacy as well. By the time you finish reading this book, you'll know how to: Prepare for and conduct computer forensics investigations Find and filter data Protect personal privacy Transfer evidence without contaminating it Anticipate legal loopholes and opponents' methods Handle passwords and encrypted data Work with the courts and win the case Plus, Computer Forensics for Dummies includes lists of things that everyone interested in computer forensics should know, do, and build. Discover how to get qualified for a career in computer forensics, what to do to be a great investigator and expert witness, and how to build a forensics lab or toolkit. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

The Definitive Guide to File System Analysis: Key Concepts and Hands-on Techniques Most digital evidence is stored within the computer's file system, but understanding how file systems work is one of the most technically challenging concepts for a digital investigator because there exists little documentation. Now, security expert Brian Carrier has written the definitive reference for everyone who wants to understand and be able to testify about how file system analysis is performed. Carrier begins with an overview of investigation and computer foundations and then gives an authoritative, comprehensive, and illustrated overview of contemporary volume and file systems: Crucial information for discovering hidden evidence, recovering deleted data, and validating your tools. Along the way, he describes data structures, analyzes example disk images, provides advanced investigation scenarios, and uses today's most valuable open source file system analysis tools—including tools he personally developed. Coverage includes Preserving the digital crime scene and duplicating hard disks for "dead analysis" Identifying hidden data on a disk's Host Protected Area (HPA) Reading source data: Direct versus BIOS access, dead versus live acquisition, error handling, and more Analyzing DOS, Apple, and GPT partitions; BSD disk labels; and Sun Volume Table of Contents using key concepts, data structures, and specific techniques Analyzing the contents of multiple disk volumes, such as

RAID and disk spanning Analyzing FAT, NTFS, Ext2, Ext3, UFS1, and UFS2 file systems using key concepts, data structures, and specific techniques Finding evidence: File metadata, recovery of deleted files, data hiding locations, and more Using The Sleuth Kit (TSK), Autopsy Forensic Browser, and related open source tools When it comes to file system analysis, no other book offers this much detail or expertise. Whether you're a digital forensics specialist, incident response team member, law enforcement officer, corporate security specialist, or auditor, this book will become an indispensable resource for forensic investigations, no matter what analysis tools you use.

Computer Forensics: Evidence Collection and Management examines cyber-crime, E-commerce, and Internet activities that could be used to exploit the Internet, computers, and electronic devices. The book focuses on the numerous vulnerabilities and threats that are inherent on the Internet and networking environments and presents techniques and suggestions for corporate security personnel, investigators, and forensic examiners to successfully identify, retrieve, and protect valuable forensic evidence for litigation and prosecution. The book is divided into two major parts for easy reference. The first part explores various crimes, laws, policies, forensic tools, and the information needed to understand the underlying concepts of computer forensic investigations. The second part presents information relating to crime scene investigations and management, disk and file structure, laboratory construction and functions, and legal testimony. Separate chapters focus on investigations involving computer systems, e-mail, and wireless devices. Presenting information patterned after technical, legal, and managerial classes held by computer forensic professionals from Cyber Crime Summits held at Kennesaw State University in 2005 and 2006, this book is an invaluable resource for those who want to be both efficient and effective when conducting an investigation.

Threat actors, be they cyber criminals, terrorists, hacktivists or disgruntled employees, are employing sophisticated attack techniques and anti-forensics tools to cover their attacks and breach attempts. As emerging and hybrid technologies continue to influence daily business decisions, the proactive use of cyber forensics to better assess the risks that the exploitation of these technologies pose to enterprise-wide operations is rapidly becoming a strategic business objective. This book moves beyond the typical, technical approach to discussing cyber forensics processes and procedures. Instead, the authors examine how cyber forensics can be applied to identifying, collecting, and examining evidential data from emerging and hybrid technologies, while taking steps to proactively manage the influence and impact, as well as the policy and governance aspects of these technologies and their effect on business operations. A world-class team of cyber forensics researchers, investigators, practitioners and law enforcement professionals have come together to provide the reader with insights and recommendations into the proactive application of cyber forensic methodologies and procedures to both protect data and to identify

digital evidence related to the misuse of these data. This book is an essential guide for both the technical and non-technical executive, manager, attorney, auditor, and general practitioner who is seeking an authoritative source on how cyber forensics may be applied to both evidential data collection and to proactively managing today's and tomorrow's emerging and hybrid technologies. The book will also serve as a primary or supplemental text in both under- and post-graduate academic programs addressing information, operational and emerging technologies, cyber forensics, networks, cloud computing and cybersecurity.

An authoritative guide to investigating high-technologycrimes Internet crime is seemingly ever on the rise, making the needfor a comprehensive resource on how to investigate these crimeseven more dire. This professional-level book--aimed at lawenforcement personnel, prosecutors, and corporateinvestigators--provides you with the training you need in order toacquire the sophisticated skills and software solutions to stay onestep ahead of computer criminals. Specifies the techniques needed to investigate, analyze, anddocument a criminal act on a Windows computer or network Places a special emphasis on how to thoroughly investigatecriminal activity and now just perform the initial response Walks you through ways to present technically complicatedmaterial in simple terms that will hold up in court Features content fully updated for Windows Server 2008 R2 andWindows 7 Covers the emerging field of Windows Mobile forensics Also included is a classroom support package to ensure academicadoption, Mastering Windows Network Forensics and Investigation,2nd Edition offers help for investigating high-technologycrimes.

The official, Guidance Software-approved book on the newest EnCE exam! The EnCE exam tests that computer forensic analysts and examiners have thoroughly mastered computer investigation methodologies, as well as the use of Guidance Software's EnCase Forensic 7. The only official Guidance-endorsed study guide on the topic, this book prepares you for the exam with extensive coverage of all exam topics, real-world scenarios, hands-on exercises, up-to-date legal information, and sample evidence files, flashcards, and more. Guides readers through preparation for the newest EnCase Certified Examiner (EnCE) exam Prepares candidates for both Phase 1 and Phase 2 of the exam, as well as for practical use of the certification Covers identifying and searching hardware and files systems, handling evidence on the scene, and acquiring digital evidence using EnCase Forensic 7 Includes hands-on exercises, practice questions, and up-to-date legal information Sample evidence files, Sybex Test Engine, electronic flashcards, and more If you're preparing for the new EnCE exam, this is the study guide you need.

Launch Your Career in Computer Forensics—Quickly and Effectively Written by a team of computer forensics experts, Computer Forensics JumpStart provides all the core information you need to launch your career in this fast-growing field: Conducting a computer forensics investigation Examining the layout of a network

Finding hidden data Capturing images Identifying, collecting, and preserving computer evidence Understanding encryption and examining encrypted files Documenting your case Evaluating common computer forensic tools Presenting computer evidence in court as an expert witness

EnCase Computer Forensics -- The Official EnCEEnCase Certified Examiner Study GuideJohn Wiley & Sons

This handbook offers a comprehensive overview of cloud computing security technology and implementation while exploring practical solutions to a wide range of cloud computing security issues. As more organizations use cloud computing and cloud providers for data operations, the need for proper security in these and other potentially vulnerable areas has become a global priority for organizations of all sizes. Research efforts from academia and industry as conducted and reported by experts in all aspects of security related to cloud computing are gathered within one reference guide. Features • Covers patching and configuration vulnerabilities of a cloud server • Evaluates methods for data encryption and long-term storage in a cloud server • Demonstrates how to verify identity using a certificate chain and how to detect inappropriate changes to data or system configurations John R. Vacca is an information technology consultant and internationally known author of more than 600 articles in the areas of advanced storage, computer security, and aerospace technology. John was also a configuration management specialist, computer specialist, and the computer security official (CSO) for NASA's space station program (Freedom) and the International Space Station Program from 1988 until his 1995 retirement from NASA.

Get up and running with collecting evidence using forensics best practices to present your findings in judicial or administrative proceedings Key Features Learn the core techniques of computer forensics to acquire and secure digital evidence skillfully Conduct a digital forensic examination and document the digital evidence collected Analyze security systems and overcome complex challenges with a variety of forensic investigations Book Description A computer forensics investigator must possess a variety of skills, including the ability to answer legal questions, gather and document evidence, and prepare for an investigation. This book will help you get up and running with using digital forensic tools and techniques to investigate cybercrimes successfully. Starting with an overview of forensics and all the open source and commercial tools needed to get the job done, you'll learn core forensic practices for searching databases and analyzing data over networks, personal devices, and web applications. You'll then learn how to acquire valuable information from different places, such as filesystems, e-mails, browser histories, and search queries, and capture data remotely. As you advance, this book will guide you through implementing forensic techniques on multiple platforms, such as Windows, Linux, and macOS, to demonstrate how to recover valuable information as evidence. Finally, you'll get to grips with presenting your findings efficiently in judicial or

administrative proceedings. By the end of this book, you'll have developed a clear understanding of how to acquire, analyze, and present digital evidence like a proficient computer forensics investigator. What you will learn Understand investigative processes, the rules of evidence, and ethical guidelines Recognize and document different types of computer hardware Understand the boot process covering BIOS, UEFI, and the boot sequence Validate forensic hardware and software Discover the locations of common Windows artifacts Document your findings using technically correct terminology Who this book is for If you're an IT beginner, student, or an investigator in the public or private sector this book is for you.This book will also help professionals and investigators who are new to incident response and digital forensics and interested in making a career in the cybersecurity domain.

The leading introduction to computer crime and forensicsis now fully updated to reflect today's newest attacks, laws, and investigatory best practices. Packed with new case studies, examples, and statistics, Computer Forensics and Cyber Crime, Third Edition adds up-to-the-minute coverage of smartphones, cloud computing, GPS, Mac OS X, Linux, Stuxnet, cyberbullying, cyberterrorism, search and seizure, online gambling, and much more. Covers all forms of modern and traditional computer crime, defines all relevant terms, and explains all technical and legal concepts in plain English, so students can succeed even if they have no technical, legal, or investigatory background.

The definitive text for students of digital forensics, as well as professionals looking to deepen their understanding of an increasingly critical field Written by faculty members and associates of the world-renowned Norwegian Information Security Laboratory (NisLab) at the Norwegian University of Science and Technology (NTNU), this textbook takes a scientific approach to digital forensics ideally suited for university courses in digital forensics and information security. Each chapter was written by an accomplished expert in his or her field, many of them with extensive experience in law enforcement and industry. The author team comprises experts in digital forensics, cybercrime law, information security and related areas. Digital forensics is a key competency in meeting the growing risks of cybercrime, as well as for criminal investigation generally. Considering the astonishing pace at which new information technology – and new ways of exploiting information technology – is brought on line, researchers and practitioners regularly face new technical challenges, forcing them to continuously upgrade their investigatory skills. Designed to prepare the next generation to rise to those challenges, the material contained in Digital Forensics has been tested and refined by use in both graduate and undergraduate programs and subjected to formal evaluations for more than ten years. Encompasses all aspects of the field, including methodological, scientific, technical and legal matters Based on the latest research, it provides novel insights for students, including an informed look at the future of digital forensics Includes test questions from actual exam sets, multiple choice questions suitable

for online use and numerous visuals, illustrations and case example images Features real-word examples and scenarios, including court cases and technical problems, as well as a rich library of academic references and references to online media Digital Forensics is an excellent introductory text for programs in computer science and computer engineering and for master degree programs in military and police education. It is also a valuable reference for legal practitioners, police officers, investigators, and forensic practitioners seeking to gain a deeper understanding of digital forensics and cybercrime.

Conduct repeatable, defensible investigations with EnCase Forensic v7 Maximize the powerful tools and features of the industry-leading digital investigation software. Computer Forensics and Digital Investigation with EnCase Forensic v7 reveals, step by step, how to detect illicit activity, capture and verify evidence, recover deleted and encrypted artifacts, prepare court-ready documents, and ensure legal and regulatory compliance. The book illustrates each concept using downloadable evidence from the National Institute of Standards and Technology CFReDS. Customizable sample procedures are included throughout this practical guide. Install EnCase Forensic v7 and customize the user interface Prepare your investigation and set up a new case Collect and verify evidence from suspect computers and networks Use the EnCase Evidence Processor and Case Analyzer Uncover clues using keyword searches and filter results through GREP Work with bookmarks, timelines, hash sets, and libraries Handle case closure, final disposition, and evidence destruction Carry out field investigations using EnCase Portable Learn to program in EnCase EnScript

An all-new exam guide for version 8 of the Computer Hacking Forensic Investigator (CHFI) exam from EC-Council Get complete coverage of all the material included on version 8 of the EC-Council's Computer Hacking Forensic Investigator exam from this comprehensive resource. Written by an expert information security professional and educator, this authoritative guide addresses the tools and techniques required to successfully conduct a computer forensic investigation. You'll find learning objectives at the beginning of each chapter, exam tips, practice exam questions, and in-depth explanations. Designed to help you pass this challenging exam, this definitive volume also serves as an essential on-the-job reference. CHFI Computer Hacking Forensic Investigator Certification All-in-One Exam Guide covers all exam topics, including: Computer forensics investigation process Setting up a computer forensics lab First responder procedures Search and seizure laws Collecting and transporting digital evidence Understanding hard disks and file systems Recovering deleted files and partitions Windows forensics Forensics investigations using the AccessData Forensic Toolkit (FTK) and Guidance Software's EnCase Forensic Network, wireless, and mobile forensics Investigating web attacks Preparing investigative reports Becoming an expert witness Electronic content includes: 300 practice exam questions Test engine that provides full-length practice exams and customized quizzes by chapter or by exam domain