Record Nr. UNINA9910847597903321 Autore Westland J. Christopher Titolo Audit Analytics: Data Science for the Accounting Profession / / by J. Christopher Westland Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2024 **ISBN** 3-031-47464-3 Edizione [2nd ed. 2024.] Descrizione fisica 1 online resource (482 pages) Collana Use R!, , 2197-5744 Disciplina 657 Soggetti Statistics Accounting Computer science - Mathematics Mathematical statistics Mathematical statistics - Data processing Statistics in Business, Management, Economics, Finance, Insurance Financial Accounting Probability and Statistics in Computer Science Statistics and Computing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1. Fundamentals of Auditing Financial Statements -- 2. Foundations of Audit Analytics -- 3. Analysis of Accounting Transactions -- 4. Risk Assessment and Planning -- 5. Analytical Review: Technical Analysis --6. Analytical Review: Intelligence Scanning -- 7. Design of Audit Programs -- 8. Interim Compliance Tests -- 9. Substantive Tests -- 10. Sarbanes-Oxley Engagements -- 11. Blockchains, Cybercrime and Forensics -- 12. Special Engagements: Forecasts and Valuation -- 13. Simulated Transactions for Auditing Service Organizations. This book, using R and RStudio, demonstrates how to render an audit Sommario/riassunto opinion that is legally and statistically defensible; analyze, extract, and manipulate accounting data; build a risk assessment matrix to inform the conduct of a cost-effective audit program; and more. Today, information technology plays a pivotal role in financial control and

audit: most financial data is now digitally recorded and dispersed

among servers, clouds and networks over which the audited firm has no control. Additionally, a firm's data—particularly in the case of finance, software, insurance and biotech firms—comprises most of the audited value of the firm. Financial audits are critical mechanisms for ensuring the integrity of information systems and the reporting of organizational finances. They help avoid the abuses that led to passage of legislation such as the Foreign Corrupt Practices Act (1977), and the Sarbanes-Oxley Act (2002). Audit effectiveness has declined over the past two decades, as auditor skillsets have failed to keep up with advances in information technology. Information and communication technology lie at the core of commerce today and are integrated in business processes around the world. This book is designed to meet the increasing need of audit professionals to understand information technology and the controls required to manage it. This 2nd edition includes updated code and test. Machine learning, AI, and SEC's EDGAR data are also, improved and updated. The material included focuses on the requirements for annual Securities and Exchange Commission audits (10-K) for listed corporations. These represent the benchmark auditing procedures for specialized audits, such as internal, governmental, and attestation audits. Many examples reflect the focus of the 2024 CPA exam, and the data analytics-machine learning approach will be central to the AICPA's programs, in the near future.