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Nota di contenuto	Part 1 -- Chapter 1: The Role of AI and ML in Modern Software Testing -- Chapter 2: Software Testing from Manual to AI-Driven Automation -- Chapter 3: Quality Engineering in the Age of AI -- Chapter 4: Comparing Traditional and AI-Driven Testing -- Chapter 5: SDLC vs STLC Understanding the Basics -- Chapter 6: The Testing Pyramid in Traditional and AI-Driven Testing -- Part 2 -- Chapter 7: Revolutionizing Test Planning and Execution with AI/ML -- Chapter 8: Intelligent Test Case Development with AI/ML -- Chapter 9: AI/ML-Driven Test Setup and Management -- Chapter 10: AI/ML in Smart Defect Management and Resolution -- Chapter 11: Test Closure with AI/ML Reporting and Continuous Feedback -- Chapter 12: Eliminating Testing Gaps with AI/ML Precision -- Part 3 -- Chapter 13: Scaling Software Testing with AI/ML -- Chapter 14: Enhancing CI/CD Pipelines with AI/ML Driven Testing -- Chapter 15: AI/ML for Real-Time Test Execution Monitoring -- Chapter 16: Predicting Failures with AI/ML Analytics -- Chapter 17: The Future of QE with AI-Driven Testing -- Chapter 18. Next Steps to Implementing AI-Driven QE.
Sommario/riassunto	AI-Driven Software Testing explores how Artificial Intelligence (AI) and Machine Learning (ML) are revolutionizing quality engineering (QE), making testing more intelligent, efficient, and adaptive. The book begins by examining the critical role of QE in modern software development and the paradigm shift introduced by AI/ML. It traces the

evolution of software testing, from manual approaches to AI-powered automation, highlighting key innovations that enhance accuracy, speed, and scalability. Readers will gain a deep understanding of quality engineering in the age of AI, comparing traditional and AI-driven testing methodologies to uncover their advantages and challenges. Moving into practical applications, the book delves into AI-enhanced test planning, execution, and defect management. It explores AI-driven test case development, intelligent test environments, and real-time monitoring techniques that streamline the testing lifecycle. Additionally, it covers AI's impact on continuous integration and delivery (CI/CD), predictive analytics for failure prevention, and strategies for scaling AI-driven testing across cloud platforms. Finally, it looks ahead to the future of AI in software testing, discussing emerging trends, ethical considerations, and the evolving role of QE professionals in an AI-first world. With real-world case studies and actionable insights, AI-Driven Software Testing is an essential guide for QE engineers, developers, and tech leaders looking to harness AI for smarter, faster, and more reliable software testing. What you will learn: • What are the key principles of AI/ML-driven quality engineering • What is intelligent test case generation and adaptive test automation • Explore predictive analytics for defect prevention and risk assessment • Understand integration of AI/ML tools in CI/CD pipelines.