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Nota di contenuto	Part I Foundations and Challenges in Video Streaming -- Chapter 1 Introduction to Video Streaming Systems and Challenges -- Part II AI-Driven Approaches for Video Streaming -- Chapter 2 AI-Driven Video Quality Assessment and Enhancement Techniques -- Chapter 3 Federated Learning for Scalable Video Streaming -- Chapter 4 Deep Learning for Adaptive Video Quality -- Part III Cloud and Edge Computing in Video Streaming -- Chapter 5 Cloud-Enhanced Video Streaming: Storage and Resource Management -- Chapter 6 Edge Computing for Low-Latency Video Streaming -- Chapter 7 Swarm Intelligence for Efficient Video Data Distribution in Edge Networks -- Part IV Emerging Technologies in Video Streaming -- Chapter 8 Blockchain-Enhanced Distributed Storage for Cloud-Based Video Streaming -- Chapter 9 AI-Driven Resource Allocation and Optimization in Video Streaming -- Part V Practical Implementations and Future Trends -- Chapter 10 Case Studies and Real-World Implementations of AI, Cloud, and Edge in Video Streaming -- Chapter 11 Conclusion and Future Directions for Video Streaming

Enhancements.

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## Sommario/riassunto

This book explores how artificial intelligence, cloud computing, and edge technologies are transforming video streaming systems. It delves into AI-driven adaptive bitrate streaming, predictive resource allocation, and federated learning for personalized recommendations. The integration of cloud and edge computing is highlighted as a solution for scalability and low-latency streaming, addressing challenges like bandwidth optimization, cost-efficiency, and Quality of Experience (QoE). The book offers actionable insights into emerging technologies like 5G, quantum computing, and blockchain. It features case studies and real-world implementations, making it an essential resource for researchers, industry professionals, and students. Bridging theory and practice, the book provides a comprehensive guide to building the next generation of efficient and scalable video streaming infrastructures.

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