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Nota di contenuto	-- Chapter 1 Introduction to Image and Video Coding -- 1.1 Basic Concept of Image and Video Data -- 1.2 Representative Image and Video Datasets -- 1.3 AI-based Compression Requirement for Image and Video -- 1.4 Image and Video Coding Performance Evaluation -- 1.5 Organization of This Book -- 1.6 Summary -- Chapter 2 Fundamentals for Deep Learning-based Image and Video Coding -- 2.1 Introduction -- 2.2 Fundamental Knowledge of Deep Learning -- 2.3 Autoencoder and Variational Autoencoder -- 2.4 Principles and Framework of Deep Learning-based Image and Video Coding -- 2.5 Summary -- Chapter 3 Image and Video Quality Assessment and Perception Models -- 3.1 Introduction -- 3.2 Quality Assessment of

Image and Video -- 3.3 Just Noticeable Distortion of Image and Video -- 3.4 Visual Attention Modeling of Image and Video -- 3.5 Comparative Analysis -- 3.6 Summary -- Chapter 4 Deep Learning-based Image Coding -- 4.1 Introduction -- 4.2 Representative Methods of Lossless Image Coding -- 4.3 Representative Methods of Lossy Image Coding -- 4.4 Comparative Analysis -- 4.5 Summary -- Chapter 5 Deep Learning-based Video Coding -- 5.1 Introduction -- 5.2 Framework and Key Components -- 5.3 Representative Methods of Video Coding -- 5.4 Comparative Analysis -- 5.5 Summary -- Chapter 6 Deep Learning-based 3D and Multimodal Coding -- 6.1 Introduction -- 6.2 Overall Framework and Datasets -- 6.3 Representative Methods of 3D and Multimodal Coding -- 6.4 Comparative Analysis -- 6.5 Summary -- Chapter 7 Human and Machine Vision-Oriented Image and Video Coding -- 7.1 Introduction -- 7.2 Representative Methods of Human Perception-based Coding -- 7.3 Representative Methods of Machine Perception-based Coding -- 7.4 Comparative Analysis -- 7.5 Summary -- Chapter 8 Compression Artifacts Removal for Image and Video Coding -- 8.1 Introduction -- 8.2 Representative Methods of Compressed Image Artifacts Reduction -- 8.3 Representative Methods of Compressed Video Artifacts Reduction -- 8.4 Comparative Analysis -- 8.5 Summary -- Chapter 9 Deep Learning-based Image and Video Coding Standards -- 9.1 Introduction -- 9.2 Overview of International Standards -- 9.3 IEEE AI-based Image and Video Coding Standard -- 9.4 JPEG AI-based Image and Video Coding Standard -- 9.5 MPEG Video Coding for Machines Standard -- 9.6 MPAI End-to-End Video Coding Standard -- 9.7 Comparative Analysis -- 9.8 Summary -- Chapter 10 Implementations for Deep Learning-based Image and Video Coding -- 10.1 Introduction -- 10.2 Basics of Neural Network Compression -- 10.3 Software and Hardware Platforms for Acceleration -- 10.4 Lightweight Methods for Deep Compression Network -- 10.5 Comparative Analysis -- 10.6 Summary -- Chapter 11 Open Source Projects for Deep Learning-based Image and Video Coding -- 11.1 Introduction -- 11.2 Representative Open Source Projects for Image Coding -- 11.3 Representative Open Source Projects for Video Coding -- 11.4 Comparative Analysis -- 11.5 Summary -- Chapter 12 Future Works for AI-based Image and Video Coding -- 12.1 Future Work on Quality Assessment and Perception Models for Image and Video -- 12.2 Future Work on Deep Learning-based for Image Coding -- 12.3 Future Work on Deep Learning-based for Video Coding -- 12.4 Future Work on Deep Learning-based for 3D and Multimodal Coding -- 12.5 Future Work on Human and Machine Vision Oriented Image and Video Coding -- 12.6 Future Work on Compression Artifacts Removal for Image and Video Coding -- 12.7 Future Work on Deep Learning-based Image and Video Coding Standards -- 12.8 Future Work on Implementations for Deep Learning-based Image and Video Coding -- 12.9 Future Work on Open Source Projects for Deep Learning-based Image and Video Coding.

Sommario/riassunto

Unlocking the future of image and video coding with AI-based Image and Video Coding: Methods, Standards, and Applications, we can explore the revolutionary impact of deep learning technologies on image and video compression. This book is a must-read for researchers, practitioners, and students eager to stay ahead of the curve in an ever-evolving field where deep learning and artificial intelligence are setting new benchmarks in coding efficiency. With an unparalleled focus on the intersection of deep learning and multimedia coding, this book offers cutting-edge insights into the latest techniques and standards driving progress in the industry. From the

core principles of coding technologies to advanced topics like 3D and multimodal coding, human and machine vision-oriented compression, and compression artifacts removal, it covers all the related essentials. Special attention is given to the practical aspects of implementations, open-source projects, and standardization efforts from leading organizations like IEEE, JPEG, MPEG and MPAI. Whether you are a scholar, a professional in the multimedia industry, or a student with a foundation in computer science and electrical engineering, this book equips you with the fundamental knowledge and tools to master the latest advancements in AI-based image and video coding. You can gain a deeper understanding of how deep learning reshapes the future of image and video coding, and explore new possibilities of optimizing compression performances for both humans and machines.