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Nota di contenuto	Chapter 1: A Deep Dive Into Keras -- Chapter 2: Pre-training Strategies and Transfer Learning -- Chapter 3: The Versatility of Autoencoders -- Chapter 4: Model Compression for Practical Deployment -- Chapter 5: Automating Model Design with Meta-Optimization -- Chapter 6: Successful Neural Network Architecture Design -- Chapter 7:Reframing Difficult Deep Learning Problems.
Sommario/riassunto	Learn how to harness modern deep-learning methods in many contexts. Packed with intuitive theory, practical implementation methods, and deep-learning case studies, this book reveals how to acquire the tools you need to design and implement like a deep-learning architect. It covers tools deep learning engineers can use in a wide range of fields, from biology to computer vision to business. With nine in-depth case studies, this book will ground you in creative, real-world deep learning thinking. Youll begin with a structured guide to using Keras, with helpful tips and best practices for making the most of the framework. Next, youll learn how to train models effectively with transfer learning and self-supervised pre-training. You will then learn how to use a variety of model compressions for practical usage. Lastly, you will learn how to design successful neural network architectures and creatively reframe difficult problems into solvable ones. Youll learn not only to understand and apply methods successfully but to think critically about it. Modern Deep Learning Design and Methods is ideal for readers looking to utilize modern, flexible, and creative deep-

learning design and methods. Get ready to design and implement innovative deep-learning solutions to todays difficult problems. You will: Improve the performance of deep learning models by using pre-trained models, extracting rich features, and automating optimization. Compress deep learning models while maintaining performance. Reframe a wide variety of difficult problems and design effective deep learning solutions to solve them. Use the Keras framework, with some help from libraries like HyperOpt, TensorFlow, and PyTorch, to implement a wide variety of deep learning approaches.