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Sommario/riassunto

Build, scale, and deploy deep neural network models using the star libraries in Python About This Book Delve into advanced machine learning and deep learning use cases using Tensorflow and Keras Build, deploy, and scale end-to-end deep neural network models in a production environment Learn to deploy TensorFlow on mobile, and distributed TensorFlow on GPU, Clusters, and Kubernetes Who This Book Is For This book is for data scientists, machine learning engineers. artificial intelligence engineers, and for all TensorFlow users who wish to upgrade their TensorFlow knowledge and work on various machine learning and deep learning problems. If you are looking for an easy-tofollow guide that underlines the intricacies and complex use cases of machine learning, you will find this book extremely useful. Some basic understanding of TensorFlow is required to get the most out of the book. What You Will Learn Master advanced concepts of deep learning such as transfer learning, reinforcement learning, generative models and more, using TensorFlow and Keras Perform supervised (classification and regression) and unsupervised (clustering) learning to solve machine learning tasks Build end-to-end deep learning (CNN, RNN, and Autoencoders) models with TensorFlow Scale and deploy production models with distributed and high-performance computing

on GPU and clusters Build TensorFlow models to work with multilayer perceptrons using Keras, TFLearn, and R Learn the functionalities of smart apps by building and deploying TensorFlow models on iOS and Android devices Supercharge TensorFlow with distributed training and deployment on Kubernetes and TensorFlow Clusters In Detail TensorFlow is the most popular numerical computation library built from the ground up for distributed, cloud, and mobile environments. TensorFlow represents the data as tensors and the computation as graphs. This book is a comprehensive guide that lets you explore the advanced features of TensorFlow 1.x. Gain insight into TensorFlow Core, Keras, TF Estimators, TFLearn, TF Slim, Pretty Tensor, and Sonnet. Leverage the power of TensorFlow and Keras to build deep learning models, using concepts such as transfer learning, generative adversarial networks, and deep reinforcement learning. Throughout the book, you will obtain hands-on experience with varied datasets, such as MNIST, CIFAR-10, PTB, text8, and COCO-Images. You will learn the advanced features of TensorFlow1.x, such as distributed TensorFlow ...