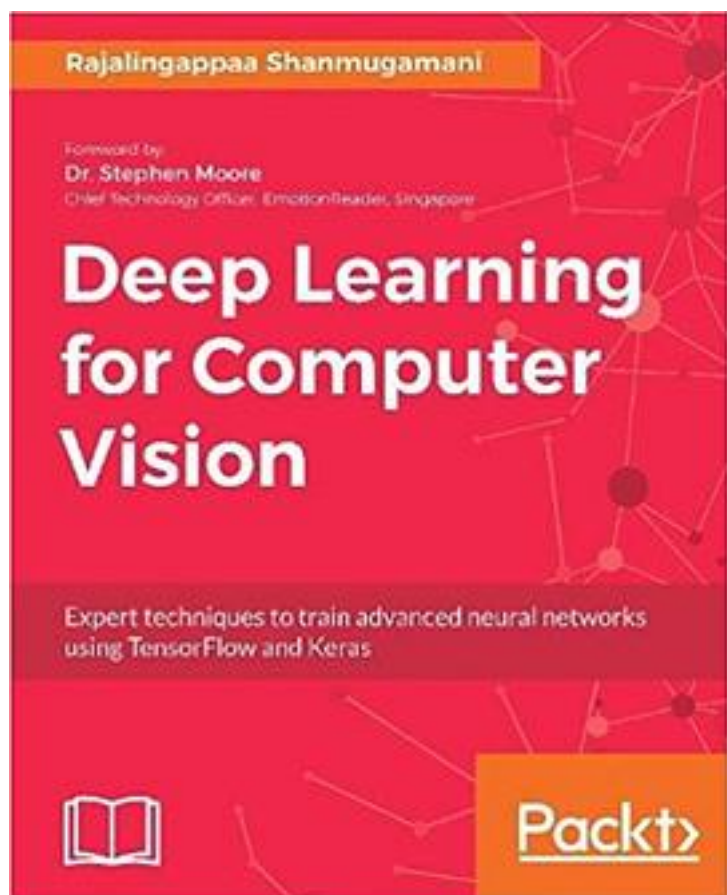


Deep Learning for Computer Vision



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Key Features

Train different kinds of deep learning model from scratch to solve specific problems in Computer Vision
Combine the power of Python, Keras, and TensorFlow to build deep

learning models for object detection, image classification, similarity learning, image captioning, and more. Includes tips on optimizing and improving the performance of your models under various constraints

Book Description

Deep learning has shown its power in several application areas of Artificial Intelligence, especially in Computer Vision. Computer Vision is the science of understanding and manipulating images, and finds enormous applications in the areas of robotics, automation, and so on. This book will also show you, with practical examples, how to develop Computer Vision applications by leveraging the power of deep learning.

In this book, you will learn different techniques related to object classification, object detection, image segmentation, captioning, image generation, face analysis, and more. You will also explore their applications using popular Python libraries such as TensorFlow and Keras. This book will help you master state-of-the-art, deep learning algorithms and their implementation.

What you will learn

Set up an environment for deep learning with Python, TensorFlow, and Keras
Define and train a model for image and video classification
Use features from a pre-trained Convolutional Neural Network model for image retrieval
Understand and implement object detection using the real-world Pedestrian Detection scenario
Learn about various problems in image captioning and how to overcome them by training images and text together
Implement similarity matching and train a model for face recognition
Understand the concept of generative models and use them for image generation
Deploy your deep learning models and optimize them for high performance

Who This Book Is For

This book is targeted at data scientists and Computer Vision practitioners who wish to apply the concepts of Deep Learning to overcome any problem related to Computer Vision. A basic knowledge of programming in Python and some understanding of machine learning concepts is required to get the best out of this book.

Table of Contents

Introduction to Deep Learning
Image Classification
Image Retrieval
Object Detection
Semantic Segmentation
Similarity Learning
Generative Models
Image Captioning
Video Classification
Deployment

作者介绍:

About the Author

Rajalingappaa Shanmugamani is currently working as a Deep Learning Lead at SAP, Singapore. Previously, he has worked and consulted at various startups for developing computer vision products. He has a Masters from Indian Institute of Technology - Madras where his thesis was based on applications of computer vision in the manufacturing industry. He has published articles in peer-reviewed journals and conferences and applied for few patents in the area of machine learning. In his spare time, he coaches programming and machine learning to school students and

engineers.

Read more

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标签

计算机视觉

tensorflow

Python

评论

优点：把所有方向和技术都蜻蜓点水般讲了讲吧。 缺点：代码实例不够啊，不是hand on 啊

还行，就是有点匆忙，感觉是博客教程大杂烩

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书评

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