

## **Additions**

1.4. Preallocating NumPy Arrays

2.6. Loading a Parquet File

2.7. Loading an Avro File

2.8. Querying a SQLite Database

2.9. Querying a Remote SQL Database

2.10. Loading Data from a Google Sheet

2.11. Loading Data from an S3 Bucket

2.12. Loading Unstructured Data

3.2. Getting Information about the Data

3.3. Slicing DataFrames

3.5. Sorting Values

3.16. Aggregating Operations and Statistics

6.8. Performing Named-Entity Recognition

6.11. Using Text Vectors to Calculate Text Similarity in a Search Query

6.12. Using a Sentiment Analysis Classifier

8.15. Using Pretrained Embeddings as Features

8.16. Detecting Objects with OpenCV

8.17. Classifying Images with Pytorch

14.6. Evaluating Random Forests with Out-of-Bag Errors

14.12. Training an XGBoost Model

14.13. Improving Real-Time Performance with LightGBM

15.5. Finding Approximate Nearest Neighbors

15.6. Evaluating Approximate Nearest Neighbors

20. Tensors with PyTorch

20.0. Introduction

20.1. Creating a Tensor

20.2. Creating a Tensor from NumPy

20.3. Creating a Sparse Tensor

20.4. Selecting Elements in a Tensor

20.5. Describing a Tensor

20.6. Applying Operations to Elements

20.7. Finding the Maximum and Minimum Values

20.8. Reshaping Tensors

20.9. Transposing a Tensor

20.10. Flattening a Tensor

20.11. Calculating Dot Products

20.12. Multiplying Tensors

21.1. Using Autograd with PyTorch

22. Neural Networks for Unstructured Data

22.0. Introduction

22.1. Training a Neural Network for Image Classification

22.2. Training a Neural Network for Text Classification

22.3. Fine-Tuning a Pretrained Model for Image Classification

22.4. Fine-Tuning a Pretrained Model for Text Classification

23.2. Saving and Loading a TensorFlow Model

23.3. Saving and Loading a PyTorch Model

23.4. Serving scikit-learn Models

23.5. Serving TensorFlow Models

23.6. Serving PyTorch Models in Seldon

## **Removings:**

2.6 Querying a SQL Database

3.2 Describing the Data

3.3 Navigating DataFrames

8.14 Encoding Mean Color as a Feature

14.11 Evaluating Random Forests with Out-of-Bag Errors (Moved to 14.6)

20.12 k-Fold Cross-Validating Neural Networks

20.15 Classifying Images

20.16 Improving Performance with Image Augmentation

20.17 Classifying Text

21.2 Saving and Loading a Keras Model