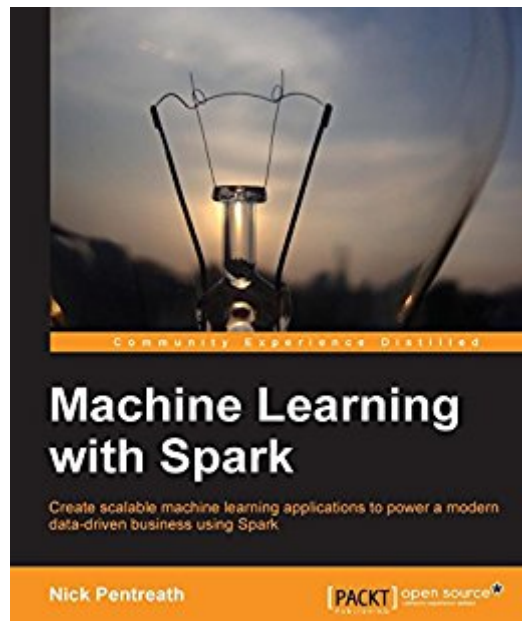


The book was found

# Machine Learning With Spark - Tackle Big Data With Powerful Spark Machine Learning Algorithms



## Synopsis

Key Features

- Follow real-world examples to learn how to develop your own machine learning systems with Spark
- A practical tutorial with real-world use cases allowing you to develop your own machine learning systems with Spark
- Combine various techniques and models into an intelligent machine learning system
- Explore and use Spark's powerful range of features to load, analyze, clean, and your data

**Book Description**

Apache Spark is a framework for distributed computing that is designed from the ground up to be optimized for low latency tasks and in-memory data storage. It is one of the few frameworks for parallel computing that combines speed, scalability, in-memory processing, and fault tolerance with ease of programming and a flexible, expressive, and powerful API design. This book guides you through the basics of Spark's API used to load and process data and prepare the data to use as input to the various machine learning models. There are detailed examples and real-world use cases for you to explore common machine learning models including recommender systems, classification, regression, clustering, and dimensionality reduction. You will cover advanced topics such as working with large-scale text data, and methods for online machine learning and model evaluation using Spark Streaming.

**What you will learn**

- Create your first Spark program in Scala, Java, and Python
- Set up and configure a development environment for Spark on your own computer, as well as on EC2
- Access public machine learning datasets and use Spark to load, process, clean, and transform data
- Use Spark's machine learning library to implement programs utilizing well-known machine learning models including collaborative filtering, classification, regression, clustering, and dimensionality reduction
- Write Spark functions to evaluate the performance of your machine learning models
- Deal with large-scale text data, including feature extraction and using text data as input to your machine learning models
- Explore online learning methods and use Spark Streaming for online learning and model evaluation

**About the Author**

Nick Pentreath is a member of the Apache Spark Project Management Committee. He has a background in financial markets, machine learning, and software development, including experience as a research scientist at the online ad targeting start-up Cognitive Match Limited in London and leading the Data Science and Analytics team at Mxit, Africa's largest social network. He is also one of the cofounders of Graphflow, a big data and machine learning company focused on user-centric recommendations and customer intelligence.

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- Building a Recommendation Engine with Spark
- Building a Classification Model with Spark
- Building a Regression Model with Spark
- Building a Clustering Model with Spark
- Dimensionality Reduction with Spark
- Advanced Text Processing with Spark
- Real-Time Machine Learning with Spark

Streaming

## Book Information

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## Customer Reviews

This book is a nice introduction to using the Apache Spark framework. It assumes no prior knowledge of either Hadoop, Spark or machine learning itself (although the latter is covered at quite a rapid pace in places so some background would likely be helpful!). The code examples are presented in Python and (mainly) Scala, with examples that are reasonably well-described. The overall tone of the book is clear and the chapters progress in a logical order, with a fairly rapid journey through the main machine learning techniques from a Spark perspective. Later chapters were particularly interesting, covering text mining and more complex methods (e.g. feature hashing). Some of the example data sets feel a little 'tired' (movie ratings data yet again - or perhaps I've just read too many machine learning books), but otherwise this is a good book and comes recommended.

This book gives a great introduction to using the Apache Spark framework, a goto for anyone who wishes to learn how to use Apache Spark framework. It assumes no prior knowledge of either

Hadoop or Spark. The code examples are presented in Python and Scala are well-described. The overall the book is clearly structured and the chapters progress in a logical order, with a fairly rapid introduction to machine learning techniques from a Spark perspective. I definitely do recommend this book for beginners.

This is not a great book.

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