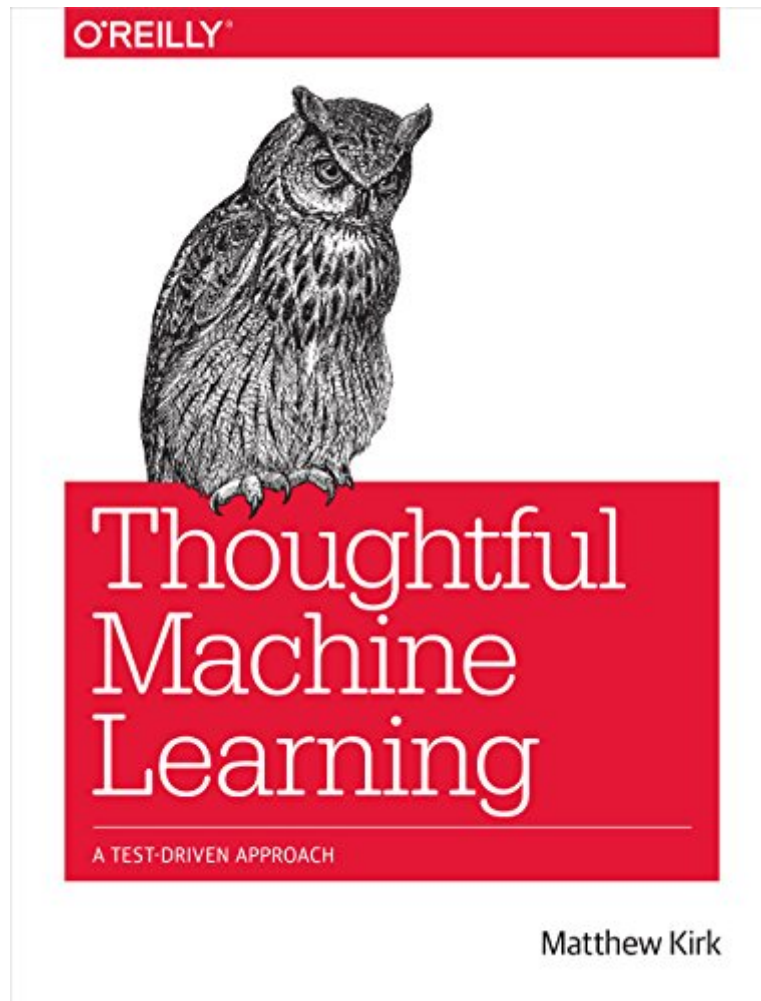# Thoughtful Machine Learning: A Test-Driven Approach

Synopsis

Learn how to apply test-driven development (TDD) to machine-learning algorithsâ "and catch mistakes that could sink your analysis. In this practical guide, author Matthew Kirk takes you through the principles of TDD and machine learning, and shows you how to apply TDD to several machine-learning algorithms, including Naive Bayesian classifiers and Neural Networks.Machine-learning algorithms often have tests baked in, but they canâ ™t account for human errors in coding. Rather than blindly rely on machine-learning results as many researchers have, you can mitigate the risk of errors with TDD and write clean, stable machine-learning code. If youâ ™re familiar with Ruby 2.1, youâ ™re ready to start.Apply TDD to write and run tests before you start codingLearn the best uses and tradeoffs of eight machine learning algorithmsUse real-world examples to test each algorithm through engaging, hands-on exercisesUnderstand the similarities between TDD and the scientific method for validating solutionsBe aware of the risks of machine learning, such as underfitting and overfitting dataExplore techniques for improving your machine-learning models or data extraction

Book Information

File Size: 4626 KB

Print Length: 236 pages

Simultaneous Device Usage: Unlimited

Publisher: O'Reilly Media; 1 edition (September 26, 2014)

Publication Date: September 26, 2014

Sold by:Â Digital Services LLC

Language: English

ASIN: B00NYBRHP8

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #895,201 Paid in Kindle Store (See Top 100 Paid in Kindle Store)   #87 inÂ Kindle Store > Kindle eBooks > Computers & Technology > Programming > Ruby   #118 inÂ Books > Computers & Technology > Computer Science > AI & Machine Learning > Natural Language Processing   #232 inÂ Books > Computers & Technology > Computer Science > AI &

Customer Reviews

The content of the book is interesting for people who already know ML and are more interested in a practical approach to it.The 1 star rating is due to the amount of mistakes in the book. Between numbers which don't add up, graphs that don't fit the legend, typos in equations, ...I recommend reading the errata first and annotating the pages with errors, otherwise, it's confusing.

Promises to do too much and falls flat. Neither good test driven development nor analyst/developer centric algorithm explanations. Not suitable for software company book groups.

Totally disappointed. Didn't get much of anything from this book. A lot of space wasted on Ruby code that's not necessarily easier to follow than Python. Each chapter just presents key formula and doesn't explain underlying concepts well even at the basic level. "Machine Learning in Action" does a much better job at practical introduction to machine learning. And where's the TDD stuff? Very misleading title. I thought things like cross validation are already an integral part of machine learning.

I recommend!!!!

A little off-center in a crowded field, and therefore worthy.

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