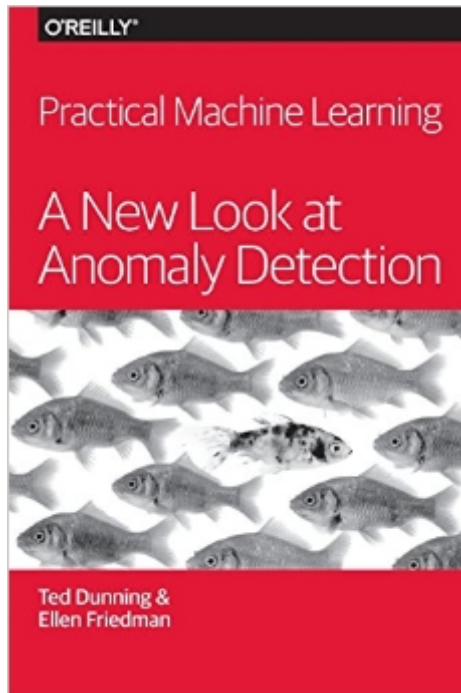


The book was found

# Practical Machine Learning: A New Look At Anomaly Detection



## Synopsis

Finding Data Anomalies You Didn't Know to Look For Anomaly detection is the detective work of machine learning: finding the unusual, catching the fraud, discovering strange activity in large and complex datasets. But, unlike Sherlock Holmes, you may not know what the puzzle is, much less what you're looking for. This O'Reilly report uses practical examples to explain how the underlying concepts of anomaly detection work. From banking security to natural sciences, medicine, and marketing, anomaly detection has many useful applications in this age of big data. And the search for anomalies will intensify once the Internet of Things spawns even more new types of data. The concepts described in this report will help you tackle anomaly detection in your own project.

- Use probabilistic models to predict what's normal and contrast that to what you observe
- Set an adaptive threshold to determine which data falls outside of the normal range, using the t-digest algorithm
- Establish normal fluctuations in complex systems and signals (such as an EKG) with a more adaptive probabilistic model
- Use historical data to discover anomalies in sporadic event streams, such as web traffic
- Learn how to use deviations in expected behavior to trigger fraud alerts

## Book Information

Paperback: 66 pages

Publisher: O'Reilly Media; 1 edition (September 6, 2014)

Language: English

ISBN-10: 1491911603

ISBN-13: 978-1491911600

Product Dimensions: 6 x 0.1 x 9 inches

Shipping Weight: 5 ounces (View shipping rates and policies)

Average Customer Review: 1.0 out of 5 stars [See all reviews](#) (1 customer review)

Best Sellers Rank: #1,406,932 in Books (See Top 100 in Books) #80 in [Books > Computers & Technology > Networking & Cloud Computing > Data in the Enterprise > Electronic Data](#)

[Interchange \(EDI\)](#) #137 in [Books > Computers & Technology > Networking & Cloud Computing >](#)

[Wireless Networks](#) #287 in [Books > Textbooks > Computer Science > Algorithms](#)

## Customer Reviews

There are a lot of short, introductory texts and review articles out there that are really useful- they introduce you to the fundamental concepts of the field, so that you have a basic understanding and so that you'll know what to look up if you need it. This is not one of those books. The depth of the

"practical machine learning" advice in this book is at the level of gems like "before you can spot an anomaly, you first have to figure out what 'normal' is." (chapter 2) Really? My anomaly detection system will have to know what things AREN'T anomalies? Well thank God I dropped \$18 to find that out. Sure, the book (sort of) introduces some important concepts that could point you toward more information- like self-information, maximum entropy distributions, type I and II errors, and Bayes risk. I say "sort of" because they're not derived, motivated, or explained in any detail. Most importantly, the authors don't use the proper terms for any of them, so you won't even know what to look up for more information. My favorite chapter is the one devoted to the "t-Digest" algorithm, which was developed by one of the authors. You get to spend the entire chapter waiting for the part where they explain the algorithm, what it does, or how it works. Guess what- it's not there! There's literally an entire chapter on an algorithm that never discusses, even qualitatively, what the algorithm is. I honestly have no idea who this book is supposed to be for. The authors bring up Mahout constantly, which you're probably not using if you're new to machine learning. If you aren't a complete novice, though, you'll just be insulted.

[Download to continue reading...](#)

Practical Machine Learning: A New Look at Anomaly Detection Learning: 25 Learning Techniques for Accelerated Learning - Learn Faster by 300%! (Learning, Memory Techniques, Accelerated Learning, Memory, E Learning, ... Learning Techniques, Exam Preparation) Bread Machine Cookbook: 101 Delicious, Nutritious, Low Budget, Mouthwatering Bread Machine Cookbook: Best Bread Machine Bread Recipe Recipes for Perfect-Every-Time Bread-From Every Kind of Machine Detection Estimation and Modulation Theory, Part I: Detection, Estimation, and Filtering Theory Machine Learning: An Algorithmic Perspective, Second Edition (Chapman & Hall/Crc Machine Learning & Pattern Recognition) Style: The Lady's Guide to French Style, Fashion and Beauty- Get Dressed to Look Charm and Elegant (French Chic, Sense of Style, Style, Style Books, Style ... Dressed, Look Hot, Look Fabulous Book 1) Learn: Cognitive Psychology - How to Learn, Any Skill or Subject in 21 Days! (Learn, Learning Disability, Learning Games, Learning Techniques, Learning ... Learning, Cognitive Science, Study) Bread Machine Cooking - The Ultimate Guide to Bread Machine Bread Baking: Over 24 Bread Machine Recipes You Will Love! Python : The Ultimate Python Quickstart Guide - From Beginner To Expert (Hands On Projects, Machine Learning, Learn Coding Fast, Learning code, Database) A Practical Guide to HPLC Detection My Amazing Body: A First Look at Health and Fitness ("A First Look At..." Series) Look West Navajo Rug Designs-c (Look West Series) How Not to Look Old: Fast and Effortless Ways to Look 10 Years Younger, 10 Pounds Lighter, 10 Times Better How Not to Look OLD - 230 Tips and Tricks How to Look Younger for

Ladies 40+ Mira dentro de una cabaña / Look Inside a Log Cabin (Mira dentro/Look Inside)  
(Multilingual Edition) Quick Look Vet: Cardiology (Quick Look Veterinary Medicine) Machine Made  
and Contemporary Marbles (Grist, Everett//Machine-Made and Contemporary Marbles) Bread  
Machine Recipes: Delicious, Fast & Easy Bread Machine Recipes You Will Love Oster  
Expressbake Bread Machine Cookbook: 101 Classic Recipes With Expert Instructions For Your  
Bread Maker (Bread Machine & Bread Maker Recipes) Bread Machine 123: A Collection of 123  
Bread Machine Recipes for Every Baking Artists

[Dmca](#)