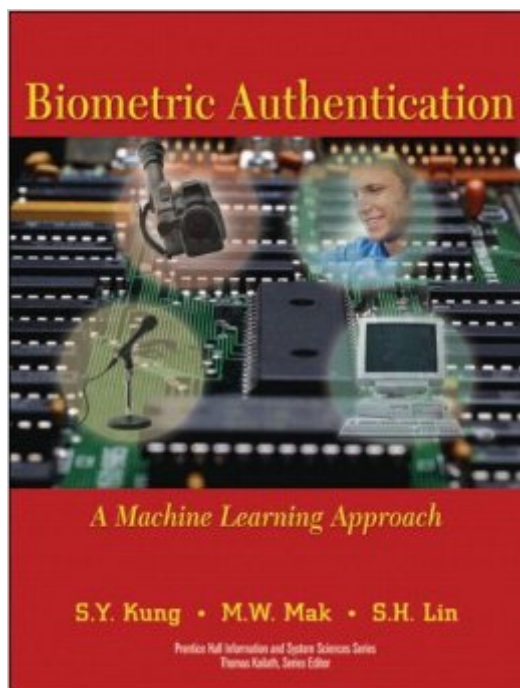


The book was found

Biometric Authentication: A Machine Learning Approach



Synopsis

A breakthrough approach to improving biometrics performance
Constructing robust information processing systems for face and voice recognition
Supporting high-performance data fusion in multimodal systems
Algorithms, implementation techniques, and application examples
Machine learning: driving significant improvements in biometric performance
As they improve, biometric authentication systems are becoming increasingly indispensable for protecting life and property. This book introduces powerful machine learning techniques that significantly improve biometric performance in a broad spectrum of application domains. Three leading researchers bridge the gap between research, design, and deployment, introducing key algorithms as well as practical implementation techniques. They demonstrate how to construct robust information processing systems for biometric authentication in both face and voice recognition systems, and to support data fusion in multimodal systems. Coverage includes: How machine learning approaches differ from conventional template matching
Theoretical pillars of machine learning for complex pattern recognition and classification
Expectation-maximization (EM) algorithms and support vector machines (SVM)
Multi-layer learning models and back-propagation (BP) algorithms
Probabilistic decision-based neural networks (PDNNs) for face biometrics
Flexible structural frameworks for incorporating machine learning subsystems in biometric applications
Hierarchical mixture of experts and inter-class learning strategies based on class-based modular networks
Multi-cue data fusion techniques that integrate face and voice recognition
Application case studies

Book Information

Hardcover: 496 pages

Publisher: Prentice Hall (September 24, 2004)

Language: English

ISBN-10: 0131478249

ISBN-13: 978-0131478244

Product Dimensions: 7.4 x 1.4 x 9.6 inches

Shipping Weight: 2.5 pounds

Average Customer Review: 2.0 out of 5 stars Â Â See all reviews Â (1 customer review)

Best Sellers Rank: #2,959,646 in Books (See Top 100 in Books) #72 in Â Books > Computers & Technology > Software > Voice Recognition #163 in Â Books > Computers & Technology > Digital Audio, Video & Photography > Speech & Audio Processing #306 in Â Books > Computers & Technology > Computer Science > AI & Machine Learning > Neural Networks

Customer Reviews

Any time you can pick up a used copy of a recently published technical book on an interesting topic at one-fourth of the retail price, you know there must be a problem. You would be right. This book tries to do three things at the same time and fails with at least two of its goals. It tries to talk about the business issues of biometrics, technical issues of specific biometric technologies (face recognition, speech recognition, etc.), and finally machine learning techniques used to accomplish the biometric measurements. Only at this last goal do I think the book comes close to success, and even then only on a sketchy high level. The first seven chapters do an OK job of explaining machine learning techniques and give you some very instructive figures that are often lacking in academic textbooks, especially on neural networks. Also, these chapters do a pretty good job of explaining the equations involved. What's lacking, though, even in these early chapters, are some simple numerical examples or algorithmic steps that would give you some guidance on how to approach a task. When the book tries to make the leap to connecting the machine learning techniques to biometric authentication in a meaningful way such that a computer scientist could code up an algorithm, the book really falls on its face. There are some nice block diagrams of biometric systems, but no real details on algorithmic steps that would allow you to realize any of those blocks. Instead, there is quite a bit of verbiage on the competition involved in building particular kinds of systems, and some rhetoric on possible pitfalls in specific biometric designs. However, with you standing there not knowing where to start with your design, this advice is really not very helpful.

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

Biometric Authentication: A Machine Learning Approach 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 Machine Learning: An Algorithmic Perspective, Second Edition (Chapman & Hall/Crc Machine Learning & Pattern Recognition) Access Control, Authentication, And Public Key Infrastructure (Jones & Bartlett Learning Information Systems Security) 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! Access Control, Authentication, And Public Key Infrastructure (Information Systems Security &

Assurance) Mechanics of User Identification and Authentication: Fundamentals of Identity Management Autograph Collector Celebrity Autograph Authentication Guide: Authentic Examples of Over 1,000 Celebrity Autographs Python : The Ultimate Python Quickstart Guide - From Beginner To Expert (Hands On Projects, Machine Learning, Learn Coding Fast, Learning code, Database) The Cross-Entropy Method: A Unified Approach to Combinatorial Optimization, Monte-Carlo Simulation and Machine Learning (Information Science and Statistics) 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 Bread Machine Gluten Free: 13 Gluten Free Bread Recipes for Your Bread Maker Machine (Celiac Disease, Gluten Intolerance, Baking) The Bread Machine Mystery: 1001 Days and Nights Immerse Yourself in Bread Machine Recipes Treasure Bread Machine Cookbook: Over 40 Delicious Bread Machine Recipes Bread Machine Heaven: 15 Dreamy Bread Machine Recipes (Baking, Bread Maker, Sourdough, Crust)

[Dmca](#)