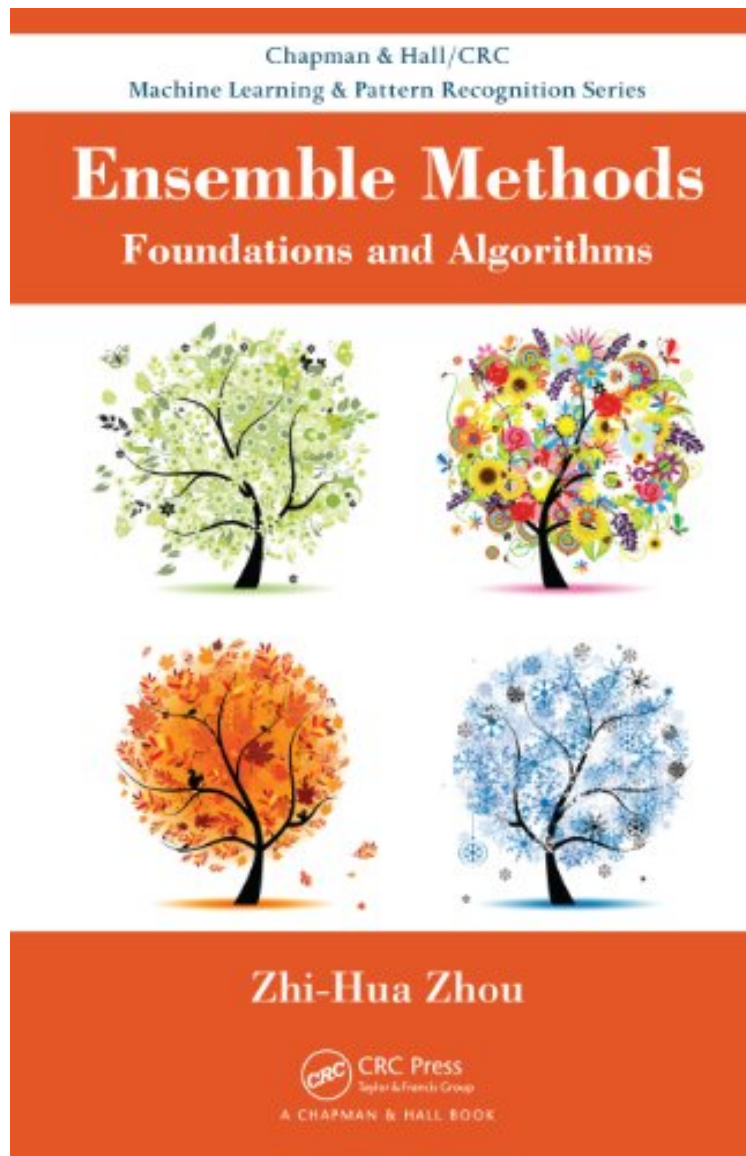


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Ensemble Methods: Foundations and Algorithms (Chapman Hall/CRC Data Mining and Knowledge Discovery Serie)

Zhi-Hua Zhou

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Zhi-Hua Zhou : Ensemble Methods: Foundations and Algorithms (Chapman Hall/CRC Data Mining and Knowledge Discovery Serie) before purchasing it in order to gage whether or not it would be worth my time, and all praised Ensemble Methods: Foundations and Algorithms (Chapman Hall/CRC Data Mining and Knowledge Discovery Serie):

0 of 0 people found the following review helpful. I quite enjoy reading it
By Runner X
The author sorts out this complex field of ensemble learning in a very accessible way, which is possibly the most valuable point of this book in my opinion. I quite enjoy reading it.
1 of 2 people found the following review helpful. not worth it
By Mikhail
PROS: - nice cover
CONS: - no gradient boosting machines (GBM) - no proofs - no state of art methods - only high level overview of some old methods - overpriced
2 of 7 people found the following review helpful. This is also a great book for industry practitioners of ensemble techniques
By QS
As a business/data analyst and a machine learning PhD student, I found this book is a great read for people interested in ensemble methods from different perspectives - industrial and research. Prof. Zhou's book provides an in-depth review of robust ensemble techniques with both theoretical and empirical analysis. The reference section is also a great supplementary material for students and practitioners. As a researcher, I really enjoyed reading the "Diversity" and the "Ensemble pruning" chapters. As a data analyst, I found Ensemble Methods is also a great reference book for programmers who need to implement ensemble algorithms.

An up-to-date, self-contained introduction to a state-of-the-art machine learning approach, Ensemble Methods: Foundations and Algorithms shows how these accurate methods are used in real-world tasks. It gives you the necessary groundwork to carry out further research in this evolving field. After presenting background and terminology, the book covers the main algorithms and theories, including Boosting, Bagging, Random Forest, averaging and voting schemes, the Stacking method, mixture of experts, and diversity measures. It also discusses multiclass extension, noise tolerance, error-ambiguity and bias-variance decompositions, and recent progress in information theoretic diversity. Moving on to more advanced topics, the author explains how to achieve better performance through ensemble pruning and how to generate better clustering results by combining multiple clusterings. In addition, he describes developments of ensemble methods in semi-supervised learning, active learning, cost-sensitive learning, class-imbalance learning, and comprehensibility enhancement.

"hellip; a valuable contribution to theoretical and practical ensemble learning. The material is very well presented, preliminaries and basic knowledge are discussed in detail, and many illustrations and pseudo-code tables help to understand the facts of this interesting field of research. Therefore, the book will become a helpful tool for practitioners working in the field of machine learning or pattern recognition as well as for students of engineering or computer sciences at the graduate and postgraduate level. I heartily recommend this book!"
IEEE Computational Intelligence Magazine, February 2013
"While the book is rather written for a machine learning and pattern recognition audience, the terminology is well explained and therefore also easily understandable for readers from other areas. In general the book is well structured and written and presents nicely the different ideas and approaches for combining single learners as well as their strengths and limitations."
Klaus Nordhausen, International Statistical (2013), 81
"Professor Zhou's book is a comprehensive introduction to ensemble methods in machine learning. It reviews the latest research in this exciting area. I learned a lot reading it!"
Thomas G. Dietterich, Professor and Director of Intelligent Systems Research, Oregon State University, Corvallis, USA; ACM Fellow; and Founding President of the International Machine Learning Society
"This is a timely book. Right time and right book hellip; with an authoritative but inclusive style that will allow many readers to gain knowledge on the topic."
Fabio Roli, University of Cagliari, Italy
About the Author
Zhi-Hua Zhou is a professor in the Department of Computer Science and Technology and the National Key Laboratory for Novel Software Technology at Nanjing University. Dr. Zhou is the founding steering committee co-chair of ACML and associate editor-in-chief, associate editor, and editorial board member of numerous journals. He has published extensively in top-tier journals, chaired many conferences, and won six international journal/conference/competition awards. His research interests encompass the areas of machine learning, data mining, pattern recognition, and multimedia information retrieval.