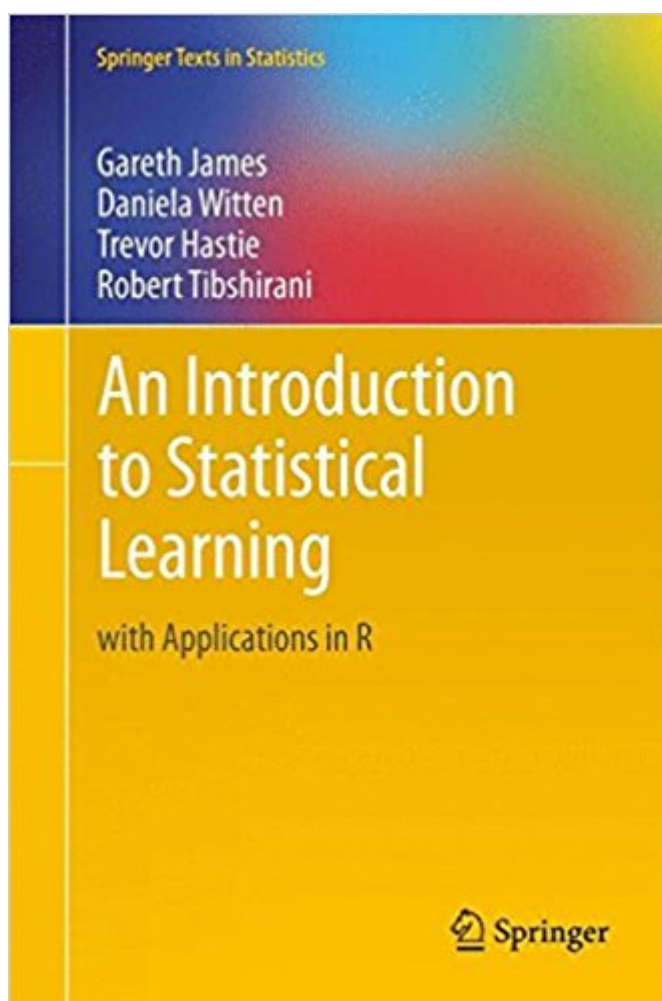**The book was found**

An Introduction To Statistical Learning: With Applications In R (Springer Texts In Statistics)

Synopsis

An Introduction to Statistical Learning provides an accessible overview of the field of statistical learning, an essential toolset for making sense of the vast and complex data sets that have emerged in fields ranging from biology to finance to marketing to astrophysics in the past twenty years. This book presents some of the most important modeling and prediction techniques, along with relevant applications. Topics include linear regression, classification, resampling methods, shrinkage approaches, tree-based methods, support vector machines, clustering, and more. Color graphics and real-world examples are used to illustrate the methods presented. Since the goal of this textbook is to facilitate the use of these statistical learning techniques by practitioners in science, industry, and other fields, each chapter contains a tutorial on implementing the analyses and methods presented in R, an extremely popular open source statistical software platform.Two of the authors co-wrote The Elements of Statistical Learning (Hastie, Tibshirani and Friedman, 2nd edition 2009), a popular reference book for statistics and machine learning researchers. An Introduction to Statistical Learning covers many of the same topics, but at a level accessible to a much broader audience. This book is targeted at statisticians and non-statisticians alike who wish to use cutting-edge statistical learning techniques to analyze their data. The text assumes only a previous course in linear regression and no knowledge of matrix algebra.

Book Information

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Customer Reviews

Poullis, Computing Reviews, September, 2014)Ã¢â ¬Å"The book provides a good introduction to R. The code for all the statistical methods introduced in the book is carefully explained. Ã¢â ¬Â| the book will certainly be useful to many people (including me). I will surely use many examples, labs and datasets from this book in my own lectures.Ã¢â ¬Â• (Pierre Alquier, Mathematical Reviews, July, 2014)Ã¢â ¬Å"The stated purpose of this book is to facilitate the transition of statistical learning to mainstream. Ã¢â ¬Â| it adds information by including more detail and R code to some of the topics in Elements of Statistical Learning. Ã¢â ¬Â| I am having a lot of fun playing with the code that goes with book. I am glad that this was written.Ã¢â ¬Â• (Mary Anne, Cats and Dogs with Data, maryannedata.com, June, 2014)Ã¢â ¬Å"This book (ISL) is a great MasterÃ¢â ¬â„¢s level introduction to statistical learning: statistics for complex datasets. Ã¢â ¬Â| the homework problems in ISL are at a MasterÃ¢â ¬â„¢s level for students who want to learn how to use statistical learning methods to analyze data. Ã¢â ¬Â| ISL contains 12 very valuable R labs that show how to use many of the statistical learning methods with the R package ISLR Ã¢â ¬Â| .Ã¢â ¬Â• (David Olive, Technometrics, Vol. 56 (2), May, 2014)Ã¢â ¬Å"Written by four experts of the field, this book offers an excellent entry to statistical learning to a broad audience, including those without strong background in mathematics. Ã¢â ¬Â| The end-of-chapter exercises make the book an ideal text forÃ Â both classroom learning and self-study. Ã¢â ¬Â| The book is suitable for anyone interested in using statistical learning tools to analyze data. It can be used as a textbook for advanced undergraduate and masterÃ¢â ¬â„¢s students in statistics or related quantitative fields.Ã¢â ¬Â• (Jianhua Z. Huang, Journal of Agricultural, Biological, and Environmental Statistics, Vol. 19, 2014)Ã¢â ¬Å"It aims to introduce modern statistical learning methods to students, researchers and practitioners who are primarily interested in analysing data and want to be confined only with the implementation of the statistical methodology and subsequent interpretation of the results. Ã¢â ¬Â| the book also demonstrates how to apply these methods using various R packages by providing detailed worked examples using interesting real data applications.Ã¢â ¬Â• (Klaus Nordhausen, International Statistical Review, Vol. 82 (1), 2014)Ã¢â ¬Å"The book is structured in ten chapters covering tools for modeling and mining of complex real life data sets. Ã¢â ¬Â| The style is suitable for undergraduates and researchers Ã¢â ¬Â| and the understanding of concepts is facilitated by the exercises, both practical and theoretical, which accompany every chapter.Ã¢â ¬Â• (Irina Ioana Mohorianu, zbMATH, Vol. 1281, 2014)Ã Â "The book excels in providing the theoretical and mathematical basis for machine learning, and now at long last, a practical view with the inclusion of R programming examples. It is the latter portion of the update that IÃ¢â ¬â„¢ve been waiting for as it directly applies to my work in data science. Give the new state of this book, IÃ¢â ¬â„¢d classify it

as the authoritative text for any machine learning practitioner...This is one book you need to get if youâ€™re serious about this growing field." (Daniel Gutierrez, Inside Big Data, inside-bigdata.com, October 2013)

"An Introduction to Statistical Learning (ISL)" by James, Witten, Hastie and Tibshirani is the "how to" manual for statistical learning. Inspired by "The Elements of Statistical Learning" (Hastie, Tibshirani and Friedman), this book provides clear and intuitive guidance on how to implement cutting edge statistical and machine learning methods. ISL makes modern methods accessible to a wide audience without requiring a background in Statistics or Computer Science. The authors give precise, practical explanations of what methods are available, and when to use them, including explicit R code. Anyone who wants to intelligently analyze complex data should own this book." (Larry Wasserman, Professor, Department of Statistics and Machine Learning Department, Carnegie Mellon University)

This is a wonderful book written by luminaries in the field. While it is not for casual consumption, it is a relatively approachable review of the state of the art for people who do not have the hardcore math needed for Â The Elements of Statistical Learning: Data Mining, Inference, and Prediction, Second Edition (Springer Series in Statistics). This book is the text for the free Winter 2014 MOOC run out of Stanford called StatLearning (sorry will not allow me to include the website). Search for the class and you can watch Drs. Hastie and Tibshirani teach the material in this book.

The book provides the right amount of theory and practice, unlike the earlier (venerable and, by now, stable) text authored (partly) by the last two authors of this one (Elements of Statistical Learning), which was/is a little heavy on the theoretical side (at least for practitioners without a strong mathematical background). The authors make no pretense about this either. The Preface says "But ESL is intended for individuals with advanced training in the mathematical sciences. An Introduction to Statistical Learning (ISL) arose from the perceived need for a broader and less technical treatment of these topics."ISL is neither as comprehensive nor as in-depth as ESL. It is, however, an excellent introduction to Learning due to the ability of the authors to strike a perfect balance between theory and practice. Theory is there to aim the reader as to understand the purpose and the "R Labs" at the end of each chapter are as valuable (or perhaps even more) than the end-of-chapter exercises.ISL is an excellent choice for a two-semester advanced undergraduate (or early graduate) course, practitioners trained in classical statistics who want to enter the Learning

space, and seasoned Machine Learners. It is especially helpful for getting the fundamentals down without being bogged down in heavy mathematical theory, a great way to kick-off corporate Learning units, or as an aid to help statisticians and learners communicate better.A needed and welcome addition to the Learning literature, authored by some of the most well respected names in industry and academia. A classic in the making. Recommended unreservedly._____UPDATE (12/17/2013): Two of the authors (Hastie & Tibshirani) are offering a 10-week free online course (StatLearning: Statistical Learning) based on this book found at Stanford University's Web site (Starting Jan. 21, 2014). They also say that "As of January 5, 2014, the pdf for this book will be available for free, with the consent of the publisher, on the book website." Amazing opportunity! Enjoy!_____UPDATE (04/03/2014): I took the course above and found it very helpful and insightful. You don't need the course to understand the book. If anything, the course videos are less detailed than the book. It is certainly nice, though, to see the actual authors explain the material. Also, the interviews by Efron and Friedman were a nice touch. The course will be offered again in the future.

This book is indispensable for whoever wants to start with machine learning with solid foundations. It gets rid of the deep mathematical developments of "The Elements of Statistical Learning" (another great book), emphasizing the concepts and techniques. The labs and exercises in R are a superb addition, giving you immediate hands-on practice as a start for doing your own exploration.The only negative aspect of this book is the total absence of references and bibliography. Not even the authors and researchers who have shaped the field are mentioned anywhere. The inclusion of a References section at the end of each chapter would have been very valuable for persons which want to go deeper in some topics, and it wouldn't have increased significantly the length of the book..A great book overall.

Without any suspense, "An Introduction to Statistical Learning" (ISL) by James, Witten, Hastie and Tibshirani is a key book in the Data Science literature. I would summarize it as a book written by statisticians for non-statisticians. Indeed, while the book "The Elements of Statistical Learning" was heavy on theory and equations, ISL is the practical counterpart. The book is very clear and contains only theory you need to understand the data mining algorithms covered. It's thus a invaluable resource for Data Scientists who don't need all theorems and proofs related to a given algorithm, but still need to understand how it works.Several examples are provided to illustrate each algorithm.

Each chapter contains a section with R labs, showing the code needed to move from reading the book to doing data science. The book has a strong emphasis on linear regression and related non-linear approaches (more than half of the book). This lets very few place to other approaches such as decision trees and SVM, which are still covered. The final chapter rapidly covers PCA and clustering.Although the book is targeted towards a larger audience than statisticians, you shouldn't be afraid of equations (by the way, if you look for an excellent book covering data science algorithms with nearly no equation, have a look at "Data Science for Business" from Provost and Fawcett). With such an excellent book, we are obviously more exigent and I was looking for more coverage of validity indices for clustering, Support Vector Regression, and a final chapter about trends and challenges. In conclusion, ISL is the definitive resource for Data Scientists who want to get the correct level of statistical background in their work.

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