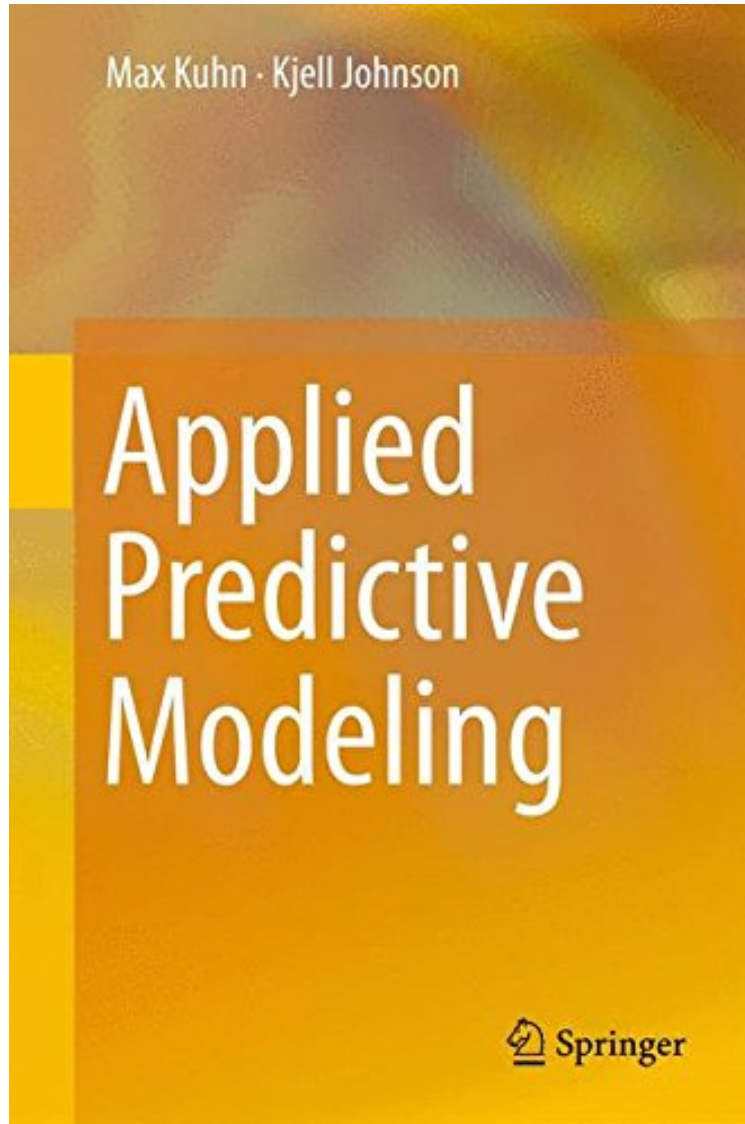


Applied Predictive Modeling

Max Kuhn, Kjell Johnson

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#47391 in Books Springer 2013-05-17Original language:EnglishPDF # 1 9.21 x 1.31 x 6.14l, 2.20 #File Name: 1461468485600 pages | File size: 52.Mb

Max Kuhn, Kjell Johnson : Applied Predictive Modeling before purchasing it in order to gage whether or not it would be worth my time, and all praised Applied Predictive Modeling:

139 of 144 people found the following review helpful. SolidBy Dimitri ShvorobI read "Applied predictive modeling" (which I will shorten to APM) shortly after I read "Introduction to statistical learning" (ISL) by James, Witten, Hastie and Tibshirani, and find that book both closest to APM, and helpful in highlighting APM's strengths.The two books cover the same broad subject. If you google "kuhn caret", you will find Max Kuhn's (very informative) presentation of

his "caret" R package, and its first slide will tell you that he uses "predictive modeling" as a synonym of "machine learning" - what Hastie and Tibshirani call "statistical learning". Adopting HT's terminology choice, I will say that both books combine theory of "statistical learning" with hands-on illustrations and exercises implemented in R; the get-your-hands-dirty, try-it-out element is, in fact, ISL's key difference from the earlier, venerable "Elements of statistical learning". Both books, inevitably, go over a catalog of statistical-learning techniques. The shorter ISL, in my opinion, is superior at explaining the concepts and communicating the principles, while APM takes the more straightforward approach of "beefing up" the catalog, by spending more pages on each item and including more items. While ISL is by design very accessible, APM can be more technical - the detail will surely be appreciated by any practitioner - and, as it talks about the various methods, it can and does discuss recent extensions, offering an extensive and "fresh" bibliography. R-wise, APM's advantage is not decisive (if you look at content, not line count) but big; the book naturally favors "caret" - which has a useful role, "wrapping" a plethora of third-party R packages, and providing a common interface, plus helpful utilities - but both references and uses the specialist packages as well. If you are wondering why I am not giving APM five stars, it's because the book jumped into the catalog mode a bit too briskly, and delivered on the "applied" promise mostly by defining "applied" as "illustrated with R examples". I wish there were more chapters like Chapter 16, which talks about the very common problem of effective classification in highly unbalanced samples. Nonetheless, I am impressed by "Applied predictive modeling" and recommend it as a sensible follow-up, or maybe even alternative, to "Introduction to statistical learning".

5 of 5 people found the following review helpful. This really is a fantastic book. I see a lot of mentions to ...By Geoff This really is a fantastic book. I see a lot of mentions to ISL in the comments, but I really feel that this book is a great compliment to ISL - specifically for reading after reading ISL - it dives deeper than ISL does into various recent developments but never dives too deeply into overly technical mathematics. It is almost a natural extension for supervised learning. I could not recommend this strongly enough.

2 of 2 people found the following review helpful. Good for understanding a wide variety of models

By Martin Isaksen I read Data Science for Business: What you need to know about data mining and data-analytic thinking before this one which gave a introduction and intuitive feel for data science. This book goes much deeper into the algorithms used in data science. As the title says, this book focuses on algorithms and models used for prediction, but that covers most applications of data science. This is a great book if you want to get an understanding of a wide variety of models and how to implement them using R. You will want to find another book if you want to focus on just a few models.

Pros: Covers a wide array of models Shows you how to use those models in R Contains references for further study Contains exercises to help practice what is taught

Warnings: Avoids heavy theoretical mathematics Expects you to know basic statistics and some higher level maths (like matrices)

Winner of the 2014 Technometrics Ziegel Prize for Outstanding Book

Applied Predictive Modeling covers the overall predictive modeling process, beginning with the crucial steps of data preprocessing, data splitting and foundations of model tuning. The text then provides intuitive explanations of numerous common and modern regression and classification techniques, always with an emphasis on illustrating and solving real data problems. Addressing practical concerns extends beyond model fitting to topics such as handling class imbalance, selecting predictors, and pinpointing causes of poor model performance all of which are problems that occur frequently in practice. The text illustrates all parts of the modeling process through many hands-on, real-life examples. And every chapter contains extensive R code for each step of the process. The data sets and corresponding code are available in the book's companion AppliedPredictiveModeling R package, which is freely available on the CRAN archive. This multi-purpose text can be used as an introduction to predictive models and the overall modeling process, a practitioner's reference handbook, or as a text for advanced undergraduate or graduate level predictive modeling courses. To that end, each chapter contains problem sets to help solidify the covered concepts and uses data available in the book's R package. Readers and students interested in implementing the methods should have some basic knowledge of R. And a handful of the more advanced topics require some mathematical knowledge.

"There are a wide variety of books available on predictive analytics and data modeling around the web...we've carefully selected the following 10 books, based on relevance, popularity, online ratings, and their ability to add value to your business. 1. Applied Predictive Modeling." (Timothy King, Business Intelligence Solutions , solutions-review.com, June, 2015)