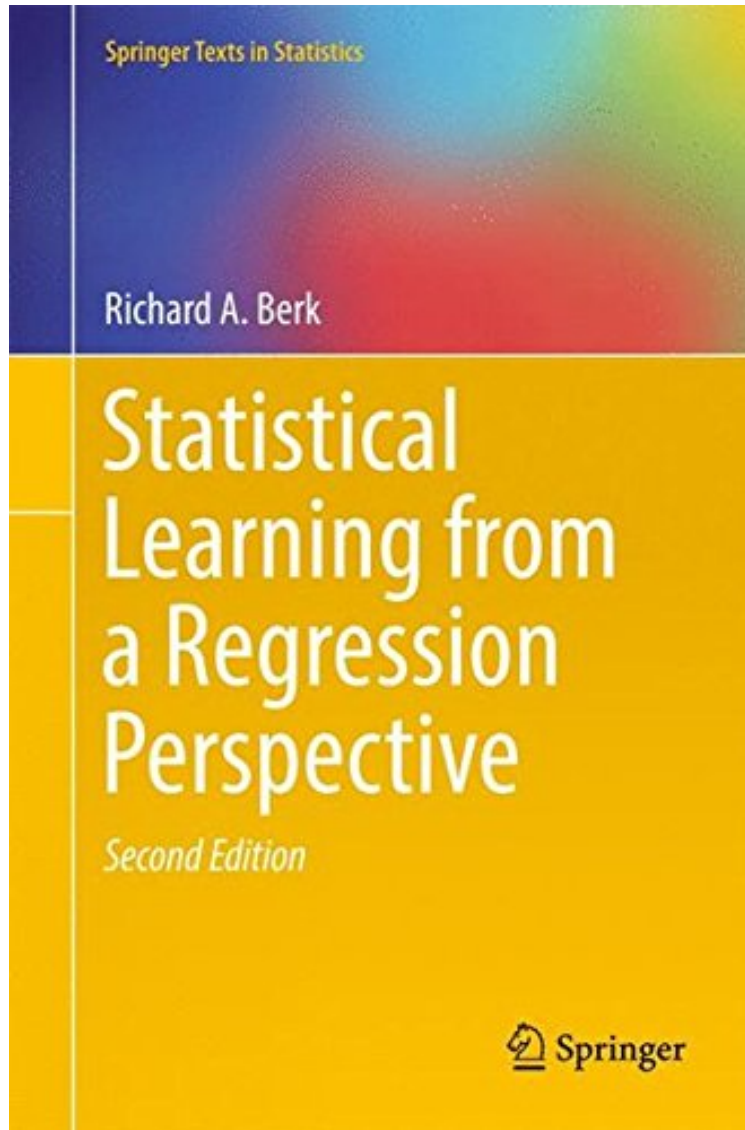


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Statistical Learning from a Regression Perspective (Springer Texts in Statistics)

Richard A. Berk

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Richard A. Berk : Statistical Learning from a Regression Perspective (Springer Texts in Statistics) before purchasing it in order to gage whether or not it would be worth my time, and all praised Statistical Learning from a Regression Perspective (Springer Texts in Statistics):

6 of 6 people found the following review helpful. A smooth transition from "Statistics" to "Machine Learning" By Prabhanjan Tattar I must admit that I am really surprised that this beautiful book does not yet have a customer review! This book was purchased by me a year back and completely benefited from it. The translation from the regression models to machine learning is really smooth. The first chapter "Statistical Learning as a Regression Problem" quickly drives home the point the interrelationship and using the basic regression model, the expectation is really setup to expect the contents in rest of the book. The second chapter is where the connection is pedagogically setup and the presentation is really neat and concise. In fact, if the reader tries to imitate the models through software and data analysis, the returns are really rewarding. Breiman, et. al. (1984) is the starting point of CART and rightly followed up in Hastie, et. al. (2001-9) ESL classic. In my experience, and strictly mine only, if the reader is slightly not familiar with a good regression course, there is some chance that he may be lost by the time he reaches the decision tree chapter. Prof. Berk's Chapter 3 "Classification and Regression Trees (CART)" is what exactly is required for a thorough understanding of the CART approach. The dividends are so apparent that I have no shame in admitting that the Chapters 8-10 of my book "R Statistical Application Development by Example" have a strong influence of Prof. Berk's book. It is my firm belief that the three chapters from my book, and Berk's book is what is required for the uninitiated reader for a even smoother reading of ESL. Chapters 4-6 then cover the CART extensions in a very useful way. These chapters are written as a very natural and gradual development of the CART. It is also remarkable that the concluding section "Summary and Conclusions" of each chapter provides a very nice and logical discussion of the chapters and a simple reading of these pages is in itself a good experience of the recent developments. Overall, I believe that Prof. Berk's book is really useful and must be there on most data miners shelf. It is also very useful for Statisticians who want to pick up on the machine learning tools. The only flip side is that I was really unable to download the data sets used in this book. A glaring mistake in the preface is this sentence "In addition, there is a web site where many examples, including the data, can be found (WEB ADDRESS TO BE ADDED)." I genuinely hope to see a correction to this in the next reprint or edition. However, despite the lack of data sets and the web address, the complete coverage itself merits all the 5 stars and does not warrant any reduction. 1 of 1 people found the following review helpful. Good bridge between statistics and machine learning By W. YIP This book covers a number of machine learning techniques: CART, Bagging, Random Forest, Boosting and SVM, Smoothers (e.g. splines, GAM) are included as they fit into the regression paradigm. A number of machine learning books mostly present the algorithm, this book discusses the underlying statistics to some detail. Although the theoretical statistical work behind some of these techniques have not been worked out completely, the author gives a good intuitive discussion about some of the issues. Also, the author includes a number of real life examples on how these techniques are actually used in practice. This book is really written for statisticians who want to apply some of the machine learning techniques in their work. You will need a fair amount of statistics knowledge to read this book.

This textbook considers statistical learning applications when interest centers on the conditional distribution of the response variable, given a set of predictors, and when it is important to characterize how the predictors are related to the response.

The book focuses on supervised learning techniques that can be viewed as a form of regression . There are instructive problems at the end ... and examples with code in R to illustrate throughout. This is a thought provoking book worthy of serious attention by machine learning practitioners. (Peter Rabinovitch, MAA s, July, 2017)