

1. Record Nr.	UNINA9910736996503321
Autore	Schonlau Matthias
Titolo	Applied Statistical Learning : With Case Studies in Stata / / by Matthias Schonlau
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	9783031333903 303133390X
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource
Collana	Statistics and Computing, , 2197-1706
Disciplina	006.31
Soggetti	Machine learning Social sciences - Statistical methods Statistics Statistics - Computer programs Quantitative research Statistical Learning Machine Learning Statistics in Social Sciences, Humanities, Law, Education, Behavioral Sciences, Public Policy Statistics in Business, Management, Economics, Finance, Insurance Statistical Software Data Analysis and Big Data Aprenentatge automàtic Estadística matemàtica Xarxes neuronals (Informàtica) Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- 1 Prologue -- 2 Statistical Learning: Concepts -- 3 Statistical Learning: Practical Aspects -- 4 Logistic Regression -- 5 Lasso and Friends -- 6 Working with Text Data -- 7 Nearest Neighbors -- 8 The Naive Bayes Classifier -- 9 Trees -- 10 Random Forests -- 11 Boosting -- 12 Support Vector Machines -- 13 Feature Engineering -- 14 Neural

Sommario/riassunto

This textbook provides an accessible overview of statistical learning methods and techniques, and includes case studies using the statistical software Stata. After introductory material on statistical learning concepts and practical aspects, each further chapter is devoted to a statistical learning algorithm or a group of related techniques. In particular, the book presents logistic regression, regularized linear models such as the Lasso, nearest neighbors, the Naive Bayes classifier, classification trees, random forests, boosting, support vector machines, feature engineering, neural networks, and stacking. It also explains how to construct n-gram variables from text data. Examples, conceptual exercises and exercises using software are featured throughout, together with case studies in Stata, mostly from the social sciences; true to the book's goal to facilitate the use of modern methods of data science in the field. Although mainly intended for upper undergraduate and graduate students in the social sciences, given its applied nature, the book will equally appeal to readers from other disciplines, including the health sciences, statistics, engineering and computer science.
