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	Titolo	Applied supervised learning with R : use machine learning libraries of R to build models that solve business problems and predict future trends. / / Karthik Ramasubramanian and Jojo Moolayil
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	Edizione	[1st edition]
	Descrizione fisica	1 online resource (503 pages)
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	Sommario/riassunto	Learn the ropes of supervised machine learning with R by studying popular real-world use cases, and understand how it drives object detection in driverless cars, customer churn, and loan default prediction. Key Features Study supervised learning algorithms by using real-world datasets Fine tune optimal parameters with hyperparameter optimization Select the best algorithm using the model evaluation framework Book Description R provides excellent visualization features that are essential for exploring data before using it in automated learning. Applied Supervised Learning with R helps you cover the complete process of employing R to develop applications using supervised machine learning algorithms for your business needs. The book starts by helping you develop your analytical thinking to create a problem statement using business inputs and domain research. You will then learn different evaluation metrics that compare various algorithms, and later progress to using these metrics to select the best algorithm for your problem. After finalizing the algorithm you want to use, you will study the hyperparameter optimization technique to fine-tune your set of optimal parameters. The book demonstrates how you can add different regularization terms to avoid overfitting your model. By the end of this book, you will have the advanced skills you need for

modeling a supervised machine learning algorithm that precisely fulfills your business needs. What you will learn Develop analytical thinking to precisely identify a business problem Wrangle data with dplyr, tidyr, and reshape2 Visualize data with ggplot2 Validate your supervised machine learning model using k-fold Optimize hyperparameters with grid and random search, and Bayesian optimization Deploy your model on Amazon Web Services (AWS) Lambda with plumber Improve your model's performance with feature selection and dimensionality reduction Who this book is for This book is specially designed for beginner and intermediate-level data analysts, data scientists, and data engineers who want to explore different methods of supervised machine learning and its use cases. Some background in statistics, probability, calculus, linear algebra, and programming will help you thoroughly understand and follow the concepts covered in this book.