1.	Record Nr.	UNINA9910818872303321
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	Titolo	Mathematics and R programming for machine learning : from the ground up / / William B. Claster
	Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press, , 2020 ©2021
	ISBN	1-00-305122-7 1-000-19699-2 1-003-05122-7 1-000-19697-6
	Descrizione fisica	1 online resource (431 pages)
	Disciplina	519.502855133
	Soggetti	R (Computer program language)
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Includes index.
	Nota di contenuto	<P>Chapter 1. Functions Tutorial. Chapter 2. Logic and R. Chapter 3. Sets with R: Building the Tools. Chapter 4. Probability. Chapter 5. Naive Rule. Chapter 6. Complete Bayes. Chapter 7. Naive Bayes Classifier. Chapter 8. Stored Model for Naive Bayes Classifier. Chapter 9. Review of Mathematics for Neural Networks. Chapter 10. Calculus. Chapter 11. Neural Networks -- Feed Forward Process and Back Propagation Process. Chapter 12. Programming a Neural Network using OOP in R. Chapter 13. Adding in a Bias Term. Chapter 14. Modular Version of Neural Networks for Deep Learning. Chapter 15. Deep Learning with Convolutional Neural Networks. Chapter 16. R Packages for Neural Networks, Deep Learning, and Naive Bayes.</P>
	Sommario/riassunto	Based on the author's experience in teaching data science for more than 10 years, Mathematics and Programming for Machine Learning with R: From the Ground Up reveals how machine learning algorithms do their magic and explains how these algorithms can be implemented in code. It is designed to provide readers with an understanding of the reasoning behind machine learning algorithms as well as how to program them. Written for novice programmers, the book progresses step-by-step, providing the coding skills needed to implement

machine learning algorithms in R. The book begins with simple implementations and fundamental concepts of logic, sets, and probability before moving to the coverage of powerful deep learning algorithms. The first eight chapters deal with probability-based machine learning algorithms, and the last eight chapters deal with machine learning based on artificial neural networks. The first half of the book does not require mathematical sophistication, although familiarity with probability and statistics would be helpful. The second half assumes the reader is familiar with at least one semester of calculus. The text guides novice R programmers through algorithms and their application and along the way; the reader gains programming confidence in tackling advanced R programming challenges. Highlights of the book include: More than 400 exercises A strong emphasis on improving programming skills and guiding beginners to the implementation of full-fledged algorithms Coverage of fundamental computer and mathematical concepts including logic, sets, and probability In-depth explanations of machine learning algorithms