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Titolo	Learn Data Mining Through Excel [[electronic resource]] : A Step-by-Step Approach for Understanding Machine Learning Methods // by Hong Zhou
Pubbl/distr/stampa	Berkeley, CA : , : Apress : , : Imprint : Apress, , 2020
ISBN	1-5231-5060-2 1-4842-5982-3
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (xvi, 219 pages) : illustrations
Disciplina	006.312
Soggetti	Microsoft software Microsoft .NET Framework Data mining Microsoft and .NET Data Mining and Knowledge Discovery
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Chapter 1: Excel and Data Mining -- Chapter 2: Linear Regression -- Chapter 3: K-Means Clustering -- Chapter 4: Linear Discriminant Analysis -- Chapter 5: Cross-Validation and ROC -- Chapter 6: Logistic Regression -- Chapter 7: K-nearest Neighbors -- Chapter 8: Naive Bayes Classification -- Chapter 9: Decision Trees -- Chapter 10: Association Analysis -- Chapter 11: Artificial Neural Network -- Chapter 12: Text Mining -- Chapter 13: After Excel.
Sommario/riassunto	Use popular data mining techniques in Microsoft Excel to better understand machine learning methods. Software tools and programming language packages take data input and deliver data mining results directly, presenting no insight on working mechanics and creating a chasm between input and output. This is where Excel can help. Excel allows you to work with data in a transparent manner. When you open an Excel file, data is visible immediately and you can work with it directly. Intermediate results can be examined while you are conducting your mining task, offering a deeper understanding of how data is manipulated and results are obtained. These are critical

aspects of the model construction process that are hidden in software tools and programming language packages. This book teaches you data mining through Excel. You will learn how Excel has an advantage in data mining when the data sets are not too large. It can give you a visual representation of data mining, building confidence in your results. You will go through every step manually, which offers not only an active learning experience, but teaches you how the mining process works and how to find the internal hidden patterns inside the data.

What You Will Learn: Comprehend data mining using a visual step-by-step approach Build on a theoretical introduction of a data mining method, followed by an Excel implementation Unveil the mystery behind machine learning algorithms, making a complex topic accessible to everyone Become skilled in creative uses of Excel formulas and functions Obtain hands-on experience with data mining and Excel

This book is for anyone who is interested in learning data mining or machine learning, especially data science visual learners and people skilled in Excel, who would like to explore data science topics and/or expand their Excel skills. A basic or beginner level understanding of Excel is recommended. Hong Zhou, PhD is a professor of computer science and mathematics and has been teaching courses in computer science, data science, mathematics, and informatics at the University of Saint Joseph for more than 15 years. His research interests include bioinformatics, data mining, software agents, and blockchain. Prior to his current position, he was as a Java developer in Silicon Valley. Dr. Zhou believes that learners can develop a better foundation of data mining models when they visually experience them step-by-step, which is what Excel offers. He has employed Excel in teaching data mining and finds it an effective approach for both data mining learners and educators.
