Data Mining: The Textbook

By Charu C. Aggarwal

Data Mining: The Textbook By Charu C. Aggarwal

This textbook explores the different aspects of data mining from the fundamentals to the complex data types and their applications, capturing the wide diversity of problem domains for data mining issues. It goes beyond the traditional focus on data mining problems to introduce advanced data types such as text, time series, discrete sequences, spatial data, graph data, and social networks. Until now, no single book has addressed all these topics in a comprehensive and integrated way. The chapters of this book fall into one of three categories:

- Fundamental chapters: Data mining has four main problems, which correspond to clustering, classification, association pattern mining, and outlier analysis. These chapters comprehensively discuss a wide variety of methods for these problems.
- Domain chapters: These chapters discuss the specific methods used for different domains of data such as text data, time-series data, sequence data, graph data, and spatial data. Application chapters: These chapters study important applications such as stream mining, Web mining, ranking, recommendations, social networks, and privacy preservation. The domain chapters also have an applied flavor.

Appropriate for both introductory and advanced data mining courses, Data Mining: The Textbook balances mathematical details and intuition. It contains the necessary mathematical details for professors and researchers, but it is presented in a simple and intuitive style to improve accessibility for students and industrial practitioners (including those with a limited mathematical background). Numerous illustrations, examples, and exercises are included, with an emphasis on semantically interpretable examples.

Praise for Data Mining: The Textbook -

"As I read through this book, I have already decided to use it in my classes. This is a book written by an outstanding researcher who has made fundamental contributions to data mining, in a way that is both accessible and up to date. The book is complete with theory and practical use cases. It's a must-have for students and professors alike!" -- Qiang Yang, Chair of Computer Science and Engineering at Hong Kong University of Science and Technology

"This is the most amazing and comprehensive text book on data mining. It covers not only the fundamental problems, such as clustering, classification, outliers and frequent patterns, and different data types, including text, time series, sequences, spatial data and graphs, but also various applications, such as recommenders, Web, social network and privacy. It is a great book for graduate students and researchers as well as practitioners." -- Philip S. Yu, UIC Distinguished Professor and Wexler Chair in Information Technology at University of Illinois at Chicago

Data Mining: The Textbook

By Charu C. Aggarwal

Data Mining: The Textbook By Charu C. Aggarwal

This textbook explores the different aspects of data mining from the fundamentals to the complex data types and their applications, capturing the wide diversity of problem domains for data mining issues. It goes beyond the traditional focus on data mining problems to introduce advanced data types such as text, time series, discrete sequences, spatial data, graph data, and social networks. Until now, no single book has addressed all these topics in a comprehensive and integrated way. The chapters of this book fall into one of three categories:

- Fundamental chapters: Data mining has four main problems, which correspond to clustering, classification, association pattern mining, and outlier analysis. These chapters comprehensively discuss a wide variety of methods for these problems.
- Domain chapters: These chapters discuss the specific methods used for different domains of data such as text data, time-series data, sequence data, graph data, and spatial data. Application chapters: These chapters study important applications such as stream mining, Web mining, ranking, recommendations, social networks, and privacy preservation. The domain chapters also have an applied flavor.

Appropriate for both introductory and advanced data mining courses, Data Mining: The Textbook balances mathematical details and intuition. It contains the necessary mathematical details for professors and researchers, but it is presented in a simple and intuitive style to improve accessibility for students and industrial practitioners (including those with a limited mathematical background). Numerous illustrations, examples, and exercises are included, with an emphasis on semantically interpretable examples.

Praise for Data Mining: The Textbook -

"As I read through this book, I have already decided to use it in my classes. This is a book written by an outstanding researcher who has made fundamental contributions to data mining, in a way that is both accessible and up to date. The book is complete with theory and practical use cases. It's a must-have for students and professors alike!" -- Qiang Yang, Chair of Computer Science and Engineering at Hong Kong University of Science and Technology

"This is the most amazing and comprehensive text book on data mining. It covers not only the fundamental problems, such as clustering, classification, outliers and frequent patterns, and different data types, including text, time series, sequences, spatial data and graphs, but also various applications, such as recommenders, Web, social network and privacy. It is a great book for graduate students and researchers as well as practitioners." -- Philip S. Yu, UIC Distinguished Professor and Wexler Chair in Information Technology at University of Illinois at Chicago

Data Mining: The Textbook By Charu C. Aggarwal Bibliography

- Sales Rank: #52928 in Books
- Brand: Springer

- Published on: 2015-04-14
- Original language: English
- Number of items: 1
- Dimensions: 10.00" h x 1.63" w x 7.00" l, .0 pounds
- Binding: Hardcover
- 734 pages

Editorial Review

Review

"Written by one of the most prodigious editors and authors in the data mining community, *Data mining: the textbook* is a comprehensive introduction to the fundamentals and applications of data mining. The recent drive in industry and academic toward data science and more specifically "big data" makes any well-written book on this topic a welcome addition to the bookshelves of experienced and aspiring data scientists… The writing style is excellent and the author managed to provide sufficient mathematical background in terms of formal proofs and notations, in order to make it self-contained and scientifically appealing to more theory-oriented readers.Covering more than 20 chapters and 700 pages, Aggarwal provides a unique textbook and reference to data mining, which I recommend to every reader working on or learning about data mining." (Radu State, ACM Computing Reviews #CR143869)

About the Author

Charu C. Aggarwal is a Distinguished Research Staff Member (DRSM) at the IBM T.J. Watson Research Center in Yorktown Heights, New York. He completed his B.S. from IIT Kanpur in 1993 and his Ph.D. from the Massachusetts Institute of Technology in 1996. He has worked extensively in the field of data mining. He has published more than 250 papers in refereed conferences and journals and authored over 80 patents. He is author or editor of 14 books, including the first comprehensive book on outlier analysis, which is written from a computer science point of view. Because of the commercial value of his patents, he has thrice been designated a Master Inventor at IBM.

He is a recipient of an IBM Corporate Award (2003) for his work on bio-terrorist threat detection in data streams, a recipient of the IBM Outstanding Innovation Award (2008) for his scientific contributions to privacy technology, a recipient of the IBM Outstanding Technical Achievement Award (2009) for his work on data streams, and a recipient of an IBM Research Division Award (2008) for his contributions to System S. He also received the EDBT 2014 Test of Time Award for his work on condensation-based privacy-preserving data mining. He has served as the general co-chair of the IEEE Big Data Conference, 2014. He served as an associate editor of the IEEE Transactions on Knowledge and Data Engineering from 2004 to 2008. He is an associate editor of the ACM Transactions on Knowledge Discovery from Data, an action editor of the Data Mining and Knowledge Discovery Journal, editor-in- chief of the ACM SIGKDD Explorations, and an associate editor of the Knowledge and Information Systems Journal. He serves on the advisory board of the Lecture Notes on Social Networks, a publication by Springer. He has served as the vice-president of the SIAM Activity Group on Data Mining, which is responsible for all data mining activities organized by SIAM, including their main data mining conference. He is a fellow of the SIAM, the ACM, and the IEEE for "contributions to knowledge discovery and data mining algorithms."

Users Review

From reader reviews:

Pauline Jones:

The book Data Mining: The Textbook make you feel enjoy for your spare time. You can use to make your

capable much more increase. Book can to be your best friend when you getting tension or having big problem together with your subject. If you can make reading a book Data Mining: The Textbook to become your habit, you can get far more advantages, like add your personal capable, increase your knowledge about a few or all subjects. It is possible to know everything if you like available and read a e-book Data Mining: The Textbook. Kinds of book are a lot of. It means that, science publication or encyclopedia or other people. So , how do you think about this guide?

David Hoag:

Information is provisions for people to get better life, information presently can get by anyone with everywhere. The information can be a expertise or any news even an issue. What people must be consider when those information which is from the former life are challenging to be find than now could be taking seriously which one works to believe or which one the resource are convinced. If you have the unstable resource then you obtain it as your main information there will be huge disadvantage for you. All of those possibilities will not happen throughout you if you take Data Mining: The Textbook as the daily resource information.

John Tovar:

Hey guys, do you desires to finds a new book to study? May be the book with the name Data Mining: The Textbook suitable to you? Often the book was written by well known writer in this era. The actual book untitled Data Mining: The Textbookis one of several books in which everyone read now. This particular book was inspired many people in the world. When you read this guide you will enter the new dimensions that you ever know prior to. The author explained their concept in the simple way, and so all of people can easily to be aware of the core of this guide. This book will give you a lots of information about this world now. To help you to see the represented of the world with this book.

Jacqueline Carter:

That publication can make you to feel relax. This specific book Data Mining: The Textbook was bright colored and of course has pictures around. As we know that book Data Mining: The Textbook has many kinds or style. Start from kids until teenagers. For example Naruto or Investigation company Conan you can read and feel that you are the character on there. Therefore , not at all of book tend to be make you bored, any it makes you feel happy, fun and loosen up. Try to choose the best book for yourself and try to like reading in which.

Download and Read Online Data Mining: The Textbook By Charu C. Aggarwal #8701FBYOECL

Read Data Mining: The Textbook By Charu C. Aggarwal for online ebook

Data Mining: The Textbook By Charu C. Aggarwal Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Data Mining: The Textbook By Charu C. Aggarwal books to read online.

Online Data Mining: The Textbook By Charu C. Aggarwal ebook PDF download

Data Mining: The Textbook By Charu C. Aggarwal Doc

Data Mining: The Textbook By Charu C. Aggarwal Mobipocket

Data Mining: The Textbook By Charu C. Aggarwal EPub

8701FBYOECL: Data Mining: The Textbook By Charu C. Aggarwal