









to progress one topic at a time without being intimidated or overwhelmed. This edition offers a reader-friendly design with a wealth of engaging learning features that connect the latest business news to chapter topics and provide helpful personal money tips. You will immediately practice concepts to reinforce learning and hone essential skills with more than 2,000 proven exercises. Jump Start problems introduce each new topic in the section exercise sets and provide a worked-out solution to help you get started. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

This two-volume handbook presents a collection of novel methodologies with applications and illustrative examples in the areas of data-driven computational social sciences. Throughout this handbook, the focus is kept specifically on business and consumer-oriented applications with interesting sections ranging from clustering and network analysis, meta-analytics, memetic algorithms, machine learning, recommender systems methodologies, parallel pattern mining and data mining to specific applications in market segmentation, travel, fashion or entertainment analytics. A must-read for anyone in data-analytics, marketing, behavior modelling and computational social science, interested in the latest applications of new computer science methodologies. The chapters are contributed by leading experts in the associated fields. The chapters cover technical aspects at different levels, some of which are introductory and could be used for teaching. Some chapters aim at building a common understanding of the methodologies and recent application areas including the introduction of new theoretical results in the complexity of core problems. Business and marketing professionals may use the book to familiarize themselves with some important foundations of data science. The work is a good starting point to establish an open dialogue of communication between professionals and researchers from different fields. Together, the two volumes present a number of different new directions in Business and Customer Analytics with an emphasis in personalization of services, the development of new mathematical models and new algorithms, heuristics and metaheuristics applied to the challenging problems in the field. Sections of the book have introductory material to more specific and advanced themes in some of the chapters, allowing the volumes to be used as an advanced textbook. Clustering, Proximity Graphs, Pattern Mining, Frequent Itemset Mining, Feature Engineering, Network and Community Detection, Network-based Recommending Systems and Visualization, are some of the topics in the first volume. Techniques on Memetic Algorithms and their applications to Business Analytics and Data Science are surveyed in the second volume; applications in Team Orienteering, Competitive Facility-location, and Visualization of Products and Consumers are also discussed. The second volume also includes an introduction to Meta-Analytics, and to the application areas of Fashion and Travel Analytics. Overall, the two-volume set helps to describe some fundamentals, acts as a bridge between different disciplines, and presents important results in a rapidly moving field combining powerful

