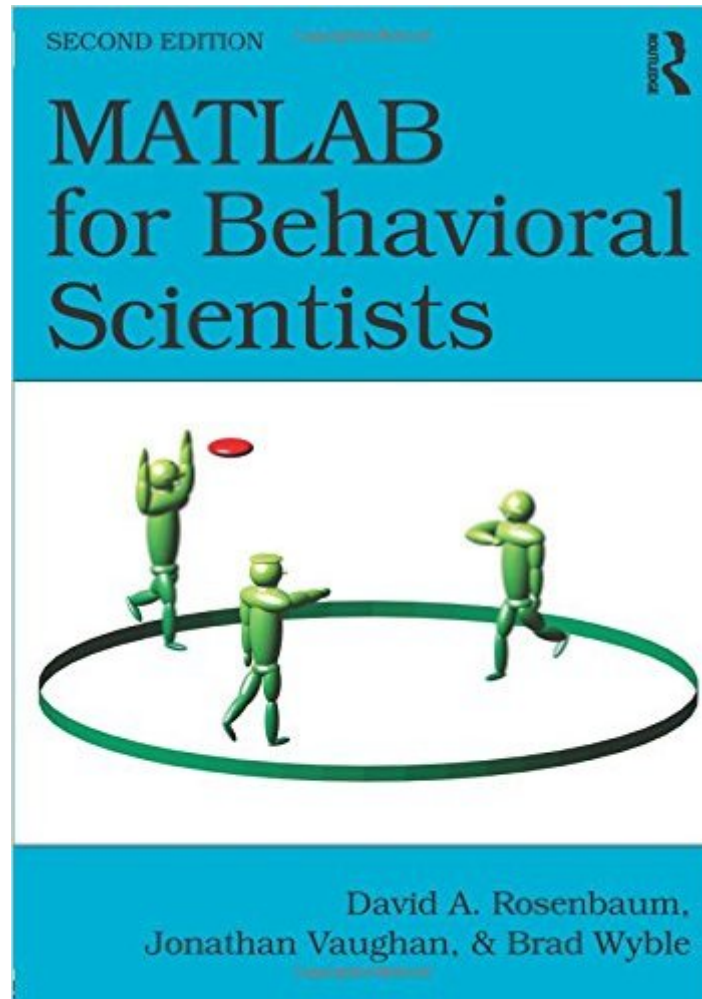The book was found

MATLAB For Behavioral Scientists, Second Edition

Synopsis

Written specifically for those with no prior programming experience and minimal quantitative training, this accessible text walks behavioral science students and researchers through the process of programming using MATLAB. The book explores examples, terms, and programming needs relevant to those in the behavioral sciences and helps readers perform virtually any computational function in solving their research problems. Principles are illustrated with usable code. Each chapter opens with a list of objectives followed by new commands required to accomplish those goals. These objectives also serve as a reference to help readers easily relocate a section of interest. Sample code and output and chapter problems demonstrate how to write a program and explore a model so readers can see the results obtained using different equations and values. A web site provides solutions to selected problems and the bookâ ™s program code output and examples so readers can manipulate them as needed. The outputs on the website have color, motion, and sound.   Highlights of the new edition include: â ¢Updated to reflect changes in the most recent version of MATLAB, including special tricks and new functions. â ¢More information on debugging and common errors and more basic problems in the rudiments of MATLAB to help novice users get up and running more quickly. â ¢A new chapter on Psychtoolbox, a suite of programs specifically geared to behavioral science research. â ¢A new chapter on Graphical User Interfaces (GUIs) for user-friendly communication. â ¢Increased emphasis on pre-allocation of memory, recursion, handles, and matrix algebra operators.   The book opens with an overview of what is to come and tips on how to write clear programs followed by pointers for interacting with MATLAB, including its commands and how to read error messages. The matrices chapter reviews how to store and access data. Chapter 4 examines how to carry out calculations followed by a review of how to perform various actions depending on the conditions. The chapter on input and output demonstrates how to design programs to create dialogs with users (e.g., participants in studies) and read and write data to and from external files. Chapter 7 reviews the data types available in MATLAB. Readers learn how to write a program as a stand-alone module in Chapter 8. In Chapters 9 and 10 readers learn how to create line and bar graphs or reshape images. Readers learn how to create animations and sounds in Chapter 11. The book concludes with tips on how to use MATLAB with applications such as GUIs and Psychtoolbox. Intended as a primary text for Matlab courses for advanced undergraduate and/or graduate students in experimental and cognitive psychology and/or neuroscience as well as a supplementary text for labs in data (statistical) analysis, research methods, and computational modeling (programming), the book also appeals to individual researchers in these disciplines who wish to get up and running in MATLAB.

Book Information

Paperback: 400 pages

Publisher: Routledge; 2 edition (July 10, 2014)

Language: English

ISBN-10: 0415535948

ISBN-13: 978-0415535946

Product Dimensions: 7 x 0.9 x 10 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars See all reviews (3 customer reviews)

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Customer Reviews

If you've never programmed before, you have access to the MATLAB computing environment, and you are willing to really work and tinker at programming, this is an excellent book. It starts you from the very first lesson and walks you through the beginnings of MATLAB. I'm biased, as I took the course as Dr. Rosenbaum taught it many years ago, but I'm thoroughly confident that his course and this book are the reason I have a job today. Keep in mind that you're not going to learn everything you need from this book. In fact, the main thing you'll learn are how to ask the right questions of your preferred search engine or online forum! As we might expect, though, from the literature on problem-solving, sometimes being able to define and mentally represent the problem itself is one of the biggest steps in solving the problem. That's what this book gets you -- a way to define and mentally represent the problems you'll be trying to solve as a programmer.MATLAB is a powerful tool for any scientist, and provided you will have access to the MATLAB computing environment, you will be well-served to familiarize yourself with MATLAB. That way when you find yourself thinking, "I don't want to manually tabulate this column" or "if only there were a way to do these data transformation tasks automatically and quickly without involving a spreadsheet program..." -- you'll have another tool in your toolkit!Now, just a quick rundown of who this book is for: if you already know how to program, you might find this book a little irritatingly basic, or you might find that it doesn't tell you the differences between MATLAB and other languages (at least, not in a way that helps you much).

MATLAB - Programming with MATLAB for Beginners - A Practical Introduction to Programming and Problem Solving (Matlab for Engineers, MATLAB for Scientists, Matlab Programming for Dummies) MATLAB for Behavioral Scientists, Second Edition Essential MATLAB for Engineers and Scientists, Fifth Edition How to Write a Successful Research Grant Application: A Guide for Social and Behavioral Scientists The Zuckerman Parker Handbook of Developmental and Behavioral Pediatrics for Primary Care (Parker, Developmental and Behavioral Pediatrics) Discrete Systems and Digital Signal Processing with MATLAB, Second Edition PSPICE and MATLAB for Electronics: An Integrated Approach, Second Edition (VLSI Circuits) Digital Communication Systems Using MATLAB and Simulink, Second Edition Smart Antennas with MATLAB, Second Edition Signals and Systems using MATLAB, Second Edition Writing for Social Scientists: How to Start and Finish Your Thesis, Book, or Article: Second Edition (Chicago Guides to Writing, Editing, and Publishing) Introduction to Brain and Behavior & Foundations of Behavioral Neuroscience, Second Edition CD-ROM Functional Behavioral Assessment, Diagnosis, and Treatment, Second Edition: A Complete System for Education and Mental Health Settings Conducting School-Based Functional Behavioral Assessments, Second Edition: A Practitioner's Guide (Guilford Practical Intervention in the Schools) Making Cognitive-Behavioral Therapy Work, Second Edition: Clinical Process for New Practitioners Behavioral Interventions in Cognitive Behavior Therapy: Practical Guidance for Putting Theory Into Action, Second Edition Applied Abstract Algebra with MapleTM and MATLABÃ Â®, Third Edition: A Maple and MATLAB Approach, Third Edition (Textbooks in Mathematics) By John G. Proakis - Digital Signal Processing with MATLAB: 4th (fourth) Edition Computer Explorations in Signals and Systems Using MATLAB (2nd Edition) Fundamentals of Signals and Systems Using the Web and MATLAB (3rd Edition)