

Learning R A Step By Step Function To Data Analysis

GETTING THE BOOKS **LEARNING R A STEP BY STEP FUNCTION TO DATA ANALYSIS** NOW IS NOT TYPE OF CHALLENGING MEANS. YOU COULD NOT UNACCOMPANIED GOING NEXT BOOK ACCRETION OR LIBRARY OR BORROWING FROM YOUR LINKS TO READ THEM. THIS IS AN CERTAINLY SIMPLE MEANS TO SPECIFICALLY ACQUIRE LEAD BY ON-LINE. THIS ONLINE PROCLAMATION **LEARNING R A STEP BY STEP FUNCTION TO DATA ANALYSIS** CAN BE ONE OF THE OPTIONS TO ACCOMPANY YOU SIMILAR TO HAVING SUPPLEMENTARY TIME.

IT WILL NOT WASTE YOUR TIME. TOLERATE ME, THE E-BOOK WILL VERY MANNER YOU OTHER THING TO READ. JUST INVEST LITTLE MATURE TO DOOR THIS ON-LINE MESSAGE **LEARNING R A STEP BY STEP FUNCTION TO DATA ANALYSIS** AS WITHOUT DIFFICULTY AS REVIEW THEM WHEREVER YOU ARE NOW.

ANALYZING THE SOCIAL WEB - JENNIFER GOLBECK 2013-02-17

ANALYZING THE SOCIAL WEB PROVIDES A FRAMEWORK FOR THE ANALYSIS OF PUBLIC DATA CURRENTLY AVAILABLE AND BEING GENERATED BY SOCIAL NETWORKS AND SOCIAL MEDIA, LIKE FACEBOOK, TWITTER, AND FOURSQUARE. ACCESS AND ANALYSIS OF THIS PUBLIC DATA ABOUT PEOPLE AND THEIR CONNECTIONS TO ONE ANOTHER ALLOWS FOR NEW APPLICATIONS OF TRADITIONAL SOCIAL NETWORK ANALYSIS TECHNIQUES THAT LET US IDENTIFY THINGS LIKE WHO ARE THE MOST IMPORTANT OR INFLUENTIAL PEOPLE IN A NETWORK, HOW THINGS WILL SPREAD THROUGH THE NETWORK, AND THE NATURE OF PEOPLES' RELATIONSHIPS. *ANALYZING THE SOCIAL WEB* INTRODUCES YOU TO THESE TECHNIQUES, SHOWS YOU THEIR APPLICATION TO MANY DIFFERENT TYPES OF SOCIAL MEDIA, AND DISCUSSES HOW SOCIAL MEDIA CAN BE USED AS A TOOL FOR INTERACTING WITH THE ONLINE PUBLIC. PRESENTS INTERACTIVE SOCIAL APPLICATIONS ON THE WEB, AND THE TYPES OF ANALYSIS THAT ARE CURRENTLY CONDUCTED IN THE STUDY OF SOCIAL MEDIA. COVERS THE BASICS OF NETWORK STRUCTURES FOR BEGINNERS, INCLUDING MEASURING METHODS FOR DESCRIBING NODES, EDGES, AND PARTS OF THE NETWORK. DISCUSSES THE MAJOR CATEGORIES OF SOCIAL MEDIA APPLICATIONS OR PHENOMENA AND SHOWS HOW THE TECHNIQUES PRESENTED CAN BE APPLIED TO ANALYZE AND UNDERSTAND THE UNDERLYING DATA. PROVIDES AN INTRODUCTION TO INFORMATION VISUALIZATION, PARTICULARLY NETWORK VISUALIZATION TECHNIQUES, AND METHODS FOR USING THEM TO IDENTIFY INTERESTING FEATURES IN A NETWORK, GENERATE HYPOTHESES FOR ANALYSIS, AND RECOGNIZE PATTERNS OF BEHAVIOR. INCLUDES A SUPPORTING WEBSITE WITH LECTURE SLIDES, EXERCISES, AND DOWNLOADABLE SOCIAL NETWORK DATA SETS THAT CAN BE USED CAN BE USED TO APPLY THE TECHNIQUES PRESENTED IN THE BOOK.

DATA SCIENCE - ANALYTICS AND APPLICATIONS - PETER HABER 2022-03-29

ORGANIZATIONS HAVE MOVED ALREADY FROM THE RIGID STRUCTURE OF CLASSICAL PROJECT MANAGEMENT TOWARDS THE ADOPTION OF AGILE APPROACHES. THIS HOLDS ALSO TRUE FOR SOFTWARE DEVELOPMENT PROJECTS, WHICH NEED TO BE FLEXIBLE TO ADOPT TO RAPID REQUESTS OF CLIENTS AS WELL TO REFLECT CHANGES THAT ARE REQUIRED DUE TO ARCHITECTURAL DESIGN DECISIONS. WITH DATA SCIENCE HAVING ESTABLISHED ITSELF AS CORNER STONE WITHIN ORGANIZATIONS AND BUSINESSES, IT IS NOW IMPERATIVE TO PERFORM THIS CRUCIAL STEP FOR ANALYTICAL BUSINESS PROCESSES AS WELL. THE NON-DETERMINISTIC NATURE OF DATA SCIENCE AND ITS INHERENT ANALYTICAL TASKS REQUIRE AN INTERACTIVE APPROACH TOWARDS AN EVOLUTIONARY STEP-BY-STEP DEVELOPMENT TO REALIZE CORE ESSENTIAL BUSINESS APPLICATIONS AND USE CASES. THE 4TH INTERNATIONAL DATA SCIENCE CONFERENCE (iDSC) 2021 BROUGHT TOGETHER RESEARCHERS, SCIENTISTS, AND BUSINESS EXPERTS TO DISCUSS MEANS OF ESTABLISHING NEW WAYS OF EMBRACING AGILE APPROACHES WITHIN THE VARIOUS DOMAINS OF DATA SCIENCE, SUCH AS MACHINE LEARNING AND AI, DATA MINING, OR VISUALIZATION AND COMMUNICATION AS WELL AS CASE STUDIES AND BEST PRACTICES FROM LEADING RESEARCH INSTITUTIONS AND BUSINESS COMPANIES. THE PROCEEDINGS INCLUDE ALL FULL PAPERS PRESENTED IN THE SCIENTIFIC TRACK AND THE CORRESPONDING GERMAN ABSTRACTS AS WELL AS THE SHORT PAPERS FROM THE STUDENT TRACK. AMONG THE TOPICS OF INTEREST ARE: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IMPLEMENTATION OF DATA MINING PROCESSES AGILE DATA SCIENCE AND VISUALIZATION CASE STUDIES AND APPLICATIONS FOR AGILE DATA SCIENCE --- ORGANISATIONEN SIND BEREITS VON DER STARREN STRUKTUR DES KLASSISCHEN PROJEKTMANAGEMENTS ZU AGILEN ANSATZEN BEREGANGEN. DIES GILT AUCH FÜR SOFTWAREENTWICKLUNGSPROJEKTE, DIE FLEXIBEL SEIN MÜSSEN, UM SCHNELL AUF DIE WÜNSCHE DER KUNDEN REAGIEREN ZU KÖNNEN UND UM VERÄNDERUNGEN ZU BERÜCKSICHTIGEN, AUFGRUND VON ARCHITECTURENTSCHEIDUNGEN ERFORDERLICH SIND. NACHDEM SICH DIE DATENWISSENSCHAFT ALS ECKPFEILER IN ORGANISATIONEN UND UNTERNEHMEN ETABLIERT HAT, IST ES NUN ZWINGEND ERFORDERLICH, DIESEN ENTSCHEIDENDEN SCHRITT AUCH FÜR ANALYTISCHE GESCHÄFTSPROZESSE DURCHZUFÜHREN. DIE NICHT-DETERMINISTISCHE NATUR DER DATENWISSENSCHAFT UND DIE IHR INNEWOHNENDEN ANALYTISCHEN AUFGABEN ERFORDERN EINEN INTERAKTIVEN ANSATZ FÜR EINE EVOLUTIONÄRE, SCHRITTWEISE ENTWICKLUNG ZUR REALISIERUNG DER WICHTIGSTEN GESCHÄFTSANWENDUNGEN UND ANWENDUNGSFÄHIGKEITEN. DIE 4. INTERNATIONALE KONFERENZ ZUR DATENWISSENSCHAFT (iDSC 2021) BRACHTE FORSCHER, WISSENSCHAFTLER UND WIRTSCHAFTSEXPERTEN ZUSAMMEN, UM MÖGLICHKEITEN ZU ERÖFFNEN, WIE NEUE WEGE ZUR UMSETZUNG AGILER ANSATZE IN DEN VERSCHIEDENEN BEREICHEN DER DATENWISSENSCHAFT, WIE MASCHINELLES LERNEN UND KI, DATA MINING ODER VISUALISIERUNG UND KOMMUNIKATION, SOWIE FALLSTUDIEN UND BEST PRACTICES VON FÜHRENDEN FORSCHUNGSEINRICHTUNGEN UND WIRTSCHAFTSUNTERNEHMEN ETABLIERT WERDEN KÖNNEN. DER TAGUNGSBAND UMFASST ALLE IM WISSENSCHAFTLICHEN TRACK VORGESTELLTEN VOLLTEXTE UND DIE KURZBEITRÄGE AUS DEM STUDENTISCHEN TRACK AUF ENGLISCH UND DIE DAZUGEHÖRIGEN ABSTRACTS AUF DEUTSCH. ZU DEN THEMEN, DIE SIE INTERESSIEREN, GEHÖREN UNTER ANDEREM: KÜNSTLICHE INTELLIGENZ UND MASCHINELLES LERNEN IMPLEMENTIERUNG VON DATA-MINING-PROZESSEN AGILE DATENWISSENSCHAFT UND VISUALISIERUNG FALLSTUDIEN UND ANWENDUNGEN FÜR AGILE DATENWISSENSCHAFT

COMPUTATIONAL GENOMICS WITH R - ALTUNA AKALIN 2020-12-16

COMPUTATIONAL GENOMICS WITH R PROVIDES A STARTING POINT FOR BEGINNERS IN GENOMIC DATA ANALYSIS AND ALSO GUIDES MORE ADVANCED PRACTITIONERS TO SOPHISTICATED DATA ANALYSIS TECHNIQUES IN GENOMICS. THE BOOK COVERS TOPICS FROM R PROGRAMMING, TO MACHINE LEARNING AND STATISTICS, TO THE LATEST GENOMIC DATA ANALYSIS TECHNIQUES. THE TEXT PROVIDES ACCESSIBLE INFORMATION AND EXPLANATIONS, ALWAYS WITH THE GENOMICS CONTEXT IN THE BACKGROUND. THIS ALSO CONTAINS PRACTICAL AND WELL-DOCUMENTED EXAMPLES IN R SO READERS CAN ANALYZE THEIR DATA

BY SIMPLY REUSING THE CODE PRESENTED. AS THE FIELD OF COMPUTATIONAL GENOMICS IS INTERDISCIPLINARY, IT REQUIRES DIFFERENT STARTING POINTS FOR PEOPLE WITH DIFFERENT BACKGROUNDS. FOR EXAMPLE, A BIOLOGIST MIGHT SKIP SECTIONS ON BASIC GENOME BIOLOGY AND START WITH R PROGRAMMING, WHEREAS A COMPUTER SCIENTIST MIGHT WANT TO START WITH GENOME BIOLOGY. AFTER READING: YOU WILL HAVE THE BASICS OF R AND BE ABLE TO DIVE RIGHT INTO SPECIALIZED USES OF R FOR COMPUTATIONAL GENOMICS SUCH AS USING BIOCONDUCTOR PACKAGES. YOU WILL BE FAMILIAR WITH STATISTICS, SUPERVISED AND UNSUPERVISED LEARNING TECHNIQUES THAT ARE IMPORTANT IN DATA MODELING, AND EXPLORATORY ANALYSIS OF HIGH-DIMENSIONAL DATA. YOU WILL UNDERSTAND GENOMIC INTERVALS AND OPERATIONS ON THEM THAT ARE USED FOR TASKS SUCH AS ALIGNED READ COUNTING AND GENOMIC FEATURE ANNOTATION. YOU WILL KNOW THE BASICS OF PROCESSING AND QUALITY CHECKING HIGH-THROUGHPUT SEQUENCING DATA. YOU WILL BE ABLE TO DO SEQUENCE ANALYSIS, SUCH AS CALCULATING GC CONTENT FOR PARTS OF A GENOME OR FINDING TRANSCRIPTION FACTOR BINDING SITES. YOU WILL KNOW ABOUT VISUALIZATION TECHNIQUES USED IN GENOMICS, SUCH AS HEATMAPS, META-GENE PLOTS, AND GENOMIC TRACK VISUALIZATION. YOU WILL BE FAMILIAR WITH ANALYSIS OF DIFFERENT HIGH-THROUGHPUT SEQUENCING DATA SETS, SUCH AS RNA-SEQ, CHIP-SEQ, AND BS-SEQ. YOU WILL KNOW BASIC TECHNIQUES FOR INTEGRATING AND INTERPRETING MULTI-OMICS DATASETS. ALTUNA AKALIN IS A GROUP LEADER AND HEAD OF THE BIOINFORMATICS AND OMICS DATA SCIENCE PLATFORM AT THE BERLIN INSTITUTE OF MEDICAL SYSTEMS BIOLOGY, MAX DELBRÜCK CENTER, BERLIN. HE HAS BEEN DEVELOPING COMPUTATIONAL METHODS FOR ANALYZING AND INTEGRATING LARGE-SCALE GENOMICS DATA SETS SINCE 2002. HE HAS PUBLISHED AN EXTENSIVE BODY OF WORK IN THIS AREA. THE FRAMEWORK FOR THIS BOOK GREW OUT OF THE YEARLY COMPUTATIONAL GENOMICS COURSES HE HAS BEEN ORGANIZING AND TEACHING SINCE 2015.

SURVIVAL ANALYSIS - DAVID G. KLEINBAUM 2013-04-18

A STRAIGHTFORWARD AND EASY-TO-FOLLOW INTRODUCTION TO THE MAIN CONCEPTS AND TECHNIQUES OF THE SUBJECT. IT IS BASED ON NUMEROUS COURSES GIVEN BY THE AUTHOR TO STUDENTS AND RESEARCHERS IN THE HEALTH SCIENCES AND IS WRITTEN WITH SUCH READERS IN MIND. A "USER-FRIENDLY" LAYOUT INCLUDES NUMEROUS ILLUSTRATIONS AND EXERCISES AND THE BOOK IS WRITTEN IN SUCH A WAY SO AS TO ENABLE READERS LEARN DIRECTLY WITHOUT THE ASSISTANCE OF A CLASSROOM INSTRUCTOR. THROUGHOUT, THERE IS AN EMPHASIS ON PRESENTING EACH NEW TOPIC BACKED BY REAL EXAMPLES OF A SURVIVAL ANALYSIS INVESTIGATION, FOLLOWED UP WITH THOROUGH ANALYSES OF REAL DATA SETS. EACH CHAPTER CONCLUDES WITH PRACTICE EXERCISES TO HELP READERS REINFORCE THEIR UNDERSTANDING OF THE CONCEPTS COVERED, BEFORE GOING ON TO A MORE COMPREHENSIVE TEST. ANSWERS TO BOTH ARE INCLUDED. READERS WILL ENJOY DAVID KLEINBAUMS STYLE OF PRESENTATION, MAKING THIS AN EXCELLENT INTRODUCTION FOR ALL THOSE COMING TO THE SUBJECT FOR THE FIRST TIME.

MACHINE LEARNING FOR PEPTIDE STRUCTURE, FUNCTION, AND DESIGN - RUIQUAN GE 2022-11-07

LEARNING R - RICHARD COTTON 2013-09-09

LEARN HOW TO PERFORM DATA ANALYSIS WITH THE R LANGUAGE AND SOFTWARE ENVIRONMENT, EVEN IF YOU HAVE LITTLE OR NO PROGRAMMING EXPERIENCE. WITH THE TUTORIALS IN THIS HANDS-ON GUIDE, YOU'LL LEARN HOW TO USE THE ESSENTIAL R TOOLS YOU NEED TO KNOW TO ANALYZE DATA, INCLUDING DATA TYPES AND PROGRAMMING CONCEPTS. THE SECOND HALF OF *LEARNING R* SHOWS YOU REAL DATA ANALYSIS IN ACTION BY COVERING EVERYTHING FROM IMPORTING DATA TO PUBLISHING YOUR RESULTS. EACH CHAPTER IN THE BOOK INCLUDES A QUIZ ON WHAT YOU'VE LEARNED, AND CONCLUDES WITH EXERCISES, MOST OF WHICH INVOLVE WRITING R CODE. WRITE A SIMPLE R PROGRAM, AND DISCOVER WHAT THE LANGUAGE CAN DO USE DATA TYPES SUCH AS VECTORS, ARRAYS, LISTS, DATA FRAMES, AND STRINGS EXECUTE CODE CONDITIONALLY OR REPEATEDLY WITH BRANCHES AND LOOPS APPLY R ADD-ON PACKAGES, AND PACKAGE YOUR OWN WORK FOR OTHERS LEARN HOW TO CLEAN DATA YOU IMPORT FROM A VARIETY OF SOURCES UNDERSTAND DATA THROUGH VISUALIZATION AND SUMMARY STATISTICS USE STATISTICAL MODELS TO PASS QUANTITATIVE JUDGMENTS ABOUT DATA AND MAKE PREDICTIONS LEARN WHAT TO DO WHEN THINGS GO WRONG WHILE WRITING DATA ANALYSIS CODE

SEAMLESS R AND C++ INTEGRATION WITH RCPP - DIRK EDELBUETTEL 2013-06-04

RCPP IS THE GLUE THAT BINDS THE POWER AND VERSATILITY OF R WITH THE SPEED AND EFFICIENCY OF C++. WITH RCPP, THE TRANSFER OF DATA BETWEEN R AND C++ IS NEARLY SEAMLESS, AND HIGH-PERFORMANCE STATISTICAL COMPUTING IS FINALLY ACCESSIBLE TO MOST R USERS. RCPP SHOULD BE PART OF EVERY STATISTICIAN'S TOOLBOX. -- MICHAEL BRAUN, MIT SLOAN SCHOOL OF MANAGEMENT "SEAMLESS R AND C++ INTEGRATION WITH RCPP" IS SIMPLY A WONDERFUL BOOK. FOR ANYONE WHO USES C/C++ AND R, IT IS AN INDISPENSABLE RESOURCE. THE WRITING IS OUTSTANDING. A HUGE BONUS IS THE SECTION ON APPLICATIONS. THIS SECTION COVERS THE MATRIX PACKAGES ARMADILLO AND EIGEN AND THE GNU SCIENTIFIC LIBRARY AS WELL AS RINSIDE WHICH ENABLES YOU TO USE R INSIDE C++. THESE APPLICATIONS ARE WHAT MOST OF US NEED TO KNOW TO REALLY DO SCIENTIFIC PROGRAMMING WITH R AND C++. I LOVE THIS BOOK. -- ROBERT MCCULLOCH, UNIVERSITY OF CHICAGO BOOTH SCHOOL OF BUSINESS RCPP IS NOW CONSIDERED AN ESSENTIAL PACKAGE FOR ANYBODY DOING SERIOUS COMPUTATIONAL RESEARCH USING R. DIRK'S BOOK IS AN EXCELLENT COMPANION AND TAKES THE READER FROM A GENTLE INTRODUCTION TO MORE ADVANCED APPLICATIONS VIA NUMEROUS EXAMPLES AND EFFICIENCY ENHANCING GEMS. THE BOOK IS PACKED WITH ALL YOU MIGHT HAVE EVER WANTED TO KNOW

ABOUT RCPP, ITS COUSINS (RCPPARMADILLO, RCPP EIGEN .ETC.), MODULES, PACKAGE DEVELOPMENT AND SUGAR. OVERALL, THIS BOOK IS A MUST-HAVE ON YOUR SHELF. -- SANJOG MISRA, UCLA ANDERSON SCHOOL OF MANAGEMENT THE RCPP PACKAGE REPRESENTS A MAJOR LEAP FORWARD FOR SCIENTIFIC COMPUTATIONS WITH R. WITH VERY FEW LINES OF C++ CODE, ONE HAS R'S DATA STRUCTURES READILY AT HAND FOR FURTHER COMPUTATIONS IN C++. HENCE, HIGH-LEVEL NUMERICAL PROGRAMMING CAN BE MADE IN C++ ALMOST AS EASILY AS IN R, BUT OFTEN WITH A SUBSTANTIAL SPEED GAIN. DIRK IS A CRUCIAL PERSON IN THESE DEVELOPMENTS, AND HIS BOOK TAKES THE READER FROM THE FIRST FRAGILE STEPS ON TO USING THE FULL RCPP MACHINERY. A VERY RECOMMENDED BOOK! -- Søren Højsgaard, DEPARTMENT OF MATHEMATICAL SCIENCES, AALBORG UNIVERSITY, DENMARK "SEAMLESS R AND C++ INTEGRATION WITH RCPP" PROVIDES THE FIRST COMPREHENSIVE INTRODUCTION TO RCPP. RCPP HAS BECOME THE MOST WIDELY-USED LANGUAGE EXTENSION FOR R, AND IS DEPLOYED BY OVER ONE-HUNDRED DIFFERENT CRAN AND BIOCONDUCTOR PACKAGES. RCPP PERMITS USERS TO PASS SCALARS, VECTORS, MATRICES, LIST OR ENTIRE R OBJECTS BACK AND FORTH BETWEEN R AND C++ WITH EASE. THIS BRINGS THE DEPTH OF THE R ANALYSIS FRAMEWORK TOGETHER WITH THE POWER, SPEED, AND EFFICIENCY OF C++. DIRK EDELBUETTEL HAS BEEN A CONTRIBUTOR TO CRAN FOR OVER A DECADE AND MAINTAINS AROUND TWENTY PACKAGES. HE IS THE DEBIAN/UBUNTU MAINTAINER FOR R AND OTHER QUANTITATIVE SOFTWARE, EDITS THE CRAN TASK VIEWS FOR FINANCE AND HIGH-PERFORMANCE COMPUTING, IS A CO-FOUNDER OF THE ANNUAL R/FINANCE CONFERENCE, AND AN EDITOR OF THE JOURNAL OF STATISTICAL SOFTWARE. HE HOLDS A PH.D. IN MATHEMATICAL ECONOMICS FROM EHESS (PARIS), AND WORKS IN CHICAGO AS A SENIOR QUANTITATIVE ANALYST.

THE BOOK OF R - TILMAN M. DAVIES 2016-07-16

THE BOOK OF R IS A COMPREHENSIVE, BEGINNER-FRIENDLY GUIDE TO R, THE WORLD'S MOST POPULAR PROGRAMMING LANGUAGE FOR STATISTICAL ANALYSIS. EVEN IF YOU HAVE NO PROGRAMMING EXPERIENCE AND LITTLE MORE THAN A GROUNDING IN THE BASICS OF MATHEMATICS, YOU'LL FIND EVERYTHING YOU NEED TO BEGIN USING R EFFECTIVELY FOR STATISTICAL ANALYSIS. YOU'LL START WITH THE BASICS, LIKE HOW TO HANDLE DATA AND WRITE SIMPLE PROGRAMS, BEFORE MOVING ON TO MORE ADVANCED TOPICS, LIKE PRODUCING STATISTICAL SUMMARIES OF YOUR DATA AND PERFORMING STATISTICAL TESTS AND MODELING. YOU'LL EVEN LEARN HOW TO CREATE IMPRESSIVE DATA VISUALIZATIONS WITH R'S BASIC GRAPHICS TOOLS AND CONTRIBUTED PACKAGES, LIKE GGLOT2 AND GGVIS, AS WELL AS INTERACTIVE 3D VISUALIZATIONS USING THE RGL PACKAGE. DOZENS OF HANDS-ON EXERCISES (WITH DOWNLOADABLE SOLUTIONS) TAKE YOU FROM THEORY TO PRACTICE, AS YOU LEARN: -THE FUNDAMENTALS OF PROGRAMMING IN R, INCLUDING HOW TO WRITE DATA FRAMES, CREATE FUNCTIONS, AND USE VARIABLES, STATEMENTS, AND LOOPS -STATISTICAL CONCEPTS LIKE EXPLORATORY DATA ANALYSIS, PROBABILITIES, HYPOTHESIS TESTS, AND REGRESSION MODELING, AND HOW TO EXECUTE THEM IN R -HOW TO ACCESS R'S THOUSANDS OF FUNCTIONS, LIBRARIES, AND DATA SETS -HOW TO DRAW VALID AND USEFUL CONCLUSIONS FROM YOUR DATA -HOW TO CREATE PUBLICATION-QUALITY GRAPHICS OF YOUR RESULTS COMBINING DETAILED EXPLANATIONS WITH REAL-WORLD EXAMPLES AND EXERCISES, THIS BOOK WILL PROVIDE YOU WITH A SOLID UNDERSTANDING OF BOTH STATISTICS AND THE DEPTH OF R'S FUNCTIONALITY. MAKE THE BOOK OF R YOUR DOORWAY INTO THE GROWING WORLD OF DATA ANALYSIS.

A HANDBOOK OF STATISTICAL ANALYSES USING R - TORSTEN HOTHORN 2014-05-30

LIKE THE BEST-SELLING FIRST TWO EDITIONS, A HANDBOOK OF STATISTICAL ANALYSES USING R, THIRD EDITION PROVIDES AN UP-TO-DATE GUIDE TO DATA ANALYSIS USING THE R SYSTEM FOR STATISTICAL COMPUTING. THE BOOK EXPLAINS HOW TO CONDUCT A RANGE OF STATISTICAL ANALYSES, FROM SIMPLE INFERENCE TO RECURSIVE PARTITIONING TO CLUSTER ANALYSIS. NEW TO THE THIRD EDITION

HANDS-ON PROGRAMMING WITH R - GARRETT GROLEMUND 2014-06-13

LEARN HOW TO PROGRAM BY DIVING INTO THE R LANGUAGE, AND THEN USE YOUR NEWFOUND SKILLS TO SOLVE PRACTICAL DATA SCIENCE PROBLEMS. WITH THIS BOOK, YOU'LL LEARN HOW TO LOAD DATA, ASSEMBLE AND DISASSEMBLE DATA OBJECTS, NAVIGATE R'S ENVIRONMENT SYSTEM, WRITE YOUR OWN FUNCTIONS, AND USE ALL OF R'S PROGRAMMING TOOLS. RSTUDIO MASTER INSTRUCTOR GARRETT GROLEMUND NOT ONLY TEACHES YOU HOW TO PROGRAM, BUT ALSO SHOWS YOU HOW TO GET MORE FROM R THAN JUST VISUALIZING AND MODELING DATA. YOU'LL GAIN VALUABLE PROGRAMMING SKILLS AND SUPPORT YOUR WORK AS A DATA SCIENTIST AT THE SAME TIME. WORK HANDS-ON WITH THREE PRACTICAL DATA ANALYSIS PROJECTS BASED ON CASINO GAMES STORE, RETRIEVE, AND CHANGE DATA VALUES IN YOUR COMPUTER'S MEMORY WRITE PROGRAMS AND SIMULATIONS THAT OUTPERFORM THOSE WRITTEN BY TYPICAL R USERS USE R PROGRAMMING TOOLS SUCH AS IF ELSE STATEMENTS, FOR LOOPS, AND S3 CLASSES LEARN HOW TO WRITE LIGHTNING-FAST VECTORIZED R CODE TAKE ADVANTAGE OF R'S PACKAGE SYSTEM AND DEBUGGING TOOLS PRACTICE AND APPLY R PROGRAMMING CONCEPTS AS YOU LEARN THEM

TEXT MINING WITH R - JULIA SILGE 2017-06-12

CHAPTER 7. CASE STUDY : COMPARING TWITTER ARCHIVES; GETTING THE DATA AND DISTRIBUTION OF TWEETS; WORD FREQUENCIES; COMPARING WORD USAGE; CHANGES IN WORD USE; FAVORITES AND RETWEETS; SUMMARY; CHAPTER 8. CASE STUDY : MINING NASA METADATA; HOW DATA IS ORGANIZED AT NASA; WRANGLING AND TIDYING THE DATA; SOME INITIAL SIMPLE EXPLORATION; WORD CO-OCCURRENCES AND CORRELATIONS; NETWORKS OF DESCRIPTION AND TITLE WORDS; NETWORKS OF KEYWORDS; CALCULATING TF-IDF FOR THE DESCRIPTION FIELDS; WHAT IS TF-IDF FOR THE DESCRIPTION FIELD WORDS?; CONNECTING DESCRIPTION FIELDS TO KEYWORDS; TOPIC MODELING.

DATA ANALYSIS AND GRAPHICS USING R - JOHN MAINDONALD 2006-12-26

JOIN THE REVOLUTION IGNITED BY THE GROUND-BREAKING R SYSTEM! STARTING WITH AN INTRODUCTION TO R, COVERING STANDARD REGRESSION METHODS, THEN PRESENTING MORE ADVANCED TOPICS, THIS BOOK GUIDES USERS THROUGH THE PRACTICAL AND POWERFUL TOOLS THAT THE R SYSTEM PROVIDES. THE EMPHASIS IS ON HANDS-ON ANALYSIS, GRAPHICAL DISPLAY AND INTERPRETATION OF DATA. THE MANY WORKED EXAMPLES, TAKEN FROM REAL-WORLD RESEARCH, ARE ACCOMPANIED BY COMMENTARY ON WHAT IS DONE AND WHY. A WEBSITE PROVIDES COMPUTER CODE AND DATA SETS, ALLOWING READERS TO REPRODUCE ALL ANALYSES. UPDATES AND SOLUTIONS TO SELECTED EXERCISES ARE ALSO AVAILABLE. ASSUMING ONLY BASIC STATISTICAL KNOWLEDGE, THE BOOK IS IDEAL FOR RESEARCH SCIENTISTS, FINAL-YEAR UNDERGRADUATE OR GRADUATE LEVEL STUDENTS OF APPLIED STATISTICS, AND PRACTISING STATISTICIANS. IT IS BOTH FOR LEARNING AND FOR

REFERENCE. THIS REVISED EDITION REFLECTS CHANGES IN R SINCE 2003 AND HAS NEW MATERIAL ON SURVIVAL ANALYSIS, RANDOM COEFFICIENT MODELS, AND THE HANDLING OF HIGH-DIMENSIONAL DATA.

LEARNING R PROGRAMMING - KUN REN 2016-10-28

BECOME AN EFFICIENT DATA SCIENTIST WITH R ABOUT THIS BOOK EXPLORE THE R LANGUAGE FROM BASIC TYPES AND DATA STRUCTURES TO ADVANCED TOPICS LEARN HOW TO TACKLE PROGRAMMING PROBLEMS AND EXPLORE BOTH FUNCTIONAL AND OBJECT-ORIENTED PROGRAMMING TECHNIQUES LEARN HOW TO ADDRESS THE CORE PROBLEMS OF PROGRAMMING IN R AND LEVERAGE THE MOST POPULAR PACKAGES FOR COMMON TASKS WHO THIS BOOK IS FOR THIS IS THE PERFECT TUTORIAL FOR ANYONE WHO IS NEW TO STATISTICAL PROGRAMMING AND MODELING. ANYONE WITH BASIC PROGRAMMING AND DATA PROCESSING SKILLS CAN PICK THIS BOOK UP TO SYSTEMATICALLY LEARN THE R PROGRAMMING LANGUAGE AND CRUCIAL TECHNIQUES. WHAT YOU WILL LEARN EXPLORE THE BASIC FUNCTIONS IN R AND FAMILIARIZE YOURSELF WITH COMMON DATA STRUCTURES WORK WITH DATA IN R USING BASIC FUNCTIONS OF STATISTICS, DATA MINING, DATA VISUALIZATION, ROOT SOLVING, AND OPTIMIZATION GET ACQUAINTED WITH R'S EVALUATION MODEL WITH ENVIRONMENTS AND META-PROGRAMMING TECHNIQUES WITH SYMBOL, CALL, FORMULA, AND EXPRESSION GET TO GRIPS WITH OBJECT-ORIENTED PROGRAMMING IN R: INCLUDING THE S3, S4, RC, AND R6 SYSTEMS ACCESS RELATIONAL DATABASES SUCH AS SQLITE AND NON-RELATIONAL DATABASES SUCH AS MONGODB AND REDIS GET TO KNOW HIGH PERFORMANCE COMPUTING TECHNIQUES SUCH AS PARALLEL COMPUTING AND RCPP USE WEB SCRAPING TECHNIQUES TO EXTRACT INFORMATION CREATE RMARKDOWN, AN INTERACTIVE APP WITH SHINY, DIAGRAMR, INTERACTIVE CHARTS, GGVIS, AND MORE IN DETAIL R IS A HIGH-LEVEL FUNCTIONAL LANGUAGE AND ONE OF THE MUST-KNOW TOOLS FOR DATA SCIENCE AND STATISTICS. POWERFUL BUT COMPLEX, R CAN BE CHALLENGING FOR BEGINNERS AND THOSE UNFAMILIAR WITH ITS UNIQUE BEHAVIORS. LEARNING R PROGRAMMING IS THE SOLUTION - AN EASY AND PRACTICAL WAY TO LEARN R AND DEVELOP A BROAD AND CONSISTENT UNDERSTANDING OF THE LANGUAGE. THROUGH HANDS-ON EXAMPLES YOU'LL DISCOVER POWERFUL R TOOLS, AND R BEST PRACTICES THAT WILL GIVE YOU A DEEPER UNDERSTANDING OF WORKING WITH DATA. YOU'LL GET TO GRIPS WITH R'S DATA STRUCTURES AND DATA PROCESSING TECHNIQUES, AS WELL AS THE MOST POPULAR R PACKAGES TO BOOST YOUR PRODUCTIVITY FROM THE OFFSET. START WITH THE BASICS OF R, THEN DIVE DEEP INTO THE PROGRAMMING TECHNIQUES AND PARADIGMS TO MAKE YOUR R CODE EXCEL. ADVANCE QUICKLY TO A DEEPER UNDERSTANDING OF R'S BEHAVIOR AS YOU LEARN COMMON TASKS INCLUDING DATA ANALYSIS, DATABASES, WEB SCRAPING, HIGH PERFORMANCE COMPUTING, AND WRITING DOCUMENTS. BY THE END OF THE BOOK, YOU'LL BE A CONFIDENT R PROGRAMMER ADEPT AT SOLVING PROBLEMS WITH THE RIGHT TECHNIQUES. STYLE AND APPROACH DEVELOPED TO MAKE LEARNING EASY AND INTUITIVE, THIS BOOK COMES PACKED WITH A WIDE VARIETY OF STATISTICAL AND GRAPHICAL TECHNIQUES AND A WEALTH OF PRACTICAL INFORMATION FOR ANYONE LOOKING TO GET STARTED WITH THIS EXCITING AND POWERFUL LANGUAGE.

BIG DATA, DATA MINING, AND MACHINE LEARNING - JARED DEAN 2014-05-07

WITH BIG DATA ANALYTICS COMES BIG INSIGHTS INTO PROFITABILITY BIG DATA IS BIG BUSINESS. BUT HAVING THE DATA AND THE COMPUTATIONAL POWER TO PROCESS IT ISN'T NEARLY ENOUGH TO PRODUCE MEANINGFUL RESULTS. BIG DATA, DATA MINING, AND MACHINE LEARNING: VALUE CREATION FOR BUSINESS LEADERS AND PRACTITIONERS IS A COMPLETE RESOURCE FOR TECHNOLOGY AND MARKETING EXECUTIVES LOOKING TO CUT THROUGH THE HYPE AND PRODUCE REAL RESULTS THAT HIT THE BOTTOM LINE. PROVIDING AN ENGAGING, THOROUGH OVERVIEW OF THE CURRENT STATE OF BIG DATA ANALYTICS AND THE GROWING TREND TOWARD HIGH PERFORMANCE COMPUTING ARCHITECTURES, THE BOOK IS A DETAIL-DRIVEN LOOK INTO HOW BIG DATA ANALYTICS CAN BE LEVERAGED TO FOSTER POSITIVE CHANGE AND DRIVE EFFICIENCY. WITH CONTINUED EXPONENTIAL GROWTH IN DATA AND EVER MORE COMPETITIVE MARKETS, BUSINESSES MUST ADAPT QUICKLY TO GAIN EVERY COMPETITIVE ADVANTAGE AVAILABLE. BIG DATA ANALYTICS CAN SERVE AS THE LINCHPIN FOR INITIATIVES THAT DRIVE BUSINESS, BUT ONLY IF THE UNDERLYING TECHNOLOGY AND ANALYSIS IS FULLY UNDERSTOOD AND APPRECIATED BY ENGAGED STAKEHOLDERS. THIS BOOK PROVIDES A VIEW INTO THE TOPIC THAT EXECUTIVES, MANAGERS, AND PRACTITIONERS REQUIRE, AND INCLUDES: A COMPLETE OVERVIEW OF BIG DATA AND ITS NOTABLE CHARACTERISTICS DETAILS ON HIGH PERFORMANCE COMPUTING ARCHITECTURES FOR ANALYTICS, MASSIVELY PARALLEL PROCESSING (MPP), AND IN-MEMORY DATABASES COMPREHENSIVE COVERAGE OF DATA MINING, TEXT ANALYTICS, AND MACHINE LEARNING ALGORITHMS A DISCUSSION OF EXPLANATORY AND PREDICTIVE MODELING, AND HOW THEY CAN BE APPLIED TO DECISION-MAKING PROCESSES BIG DATA, DATA MINING, AND MACHINE LEARNING PROVIDES TECHNOLOGY AND MARKETING EXECUTIVES WITH THE COMPLETE RESOURCE THAT HAS BEEN NOTABLY ABSENT FROM THE VERITABLE LIBRARIES OF PUBLISHED BOOKS ON THE TOPIC. TAKE CONTROL OF YOUR ORGANIZATION'S BIG DATA ANALYTICS TO PRODUCE REAL RESULTS WITH A RESOURCE THAT IS COMPREHENSIVE IN SCOPE AND LIGHT ON HYPERBOLE.

R AND DATA MINING - YANCHANG ZHAO 2012-12-31

R AND DATA MINING INTRODUCES RESEARCHERS, POST-GRADUATE STUDENTS, AND ANALYSTS TO DATA MINING USING R, A FREE SOFTWARE ENVIRONMENT FOR STATISTICAL COMPUTING AND GRAPHICS. THE BOOK PROVIDES PRACTICAL METHODS FOR USING R IN APPLICATIONS FROM ACADEMIA TO INDUSTRY TO EXTRACT KNOWLEDGE FROM VAST AMOUNTS OF DATA. READERS WILL FIND THIS BOOK A VALUABLE GUIDE TO THE USE OF R IN TASKS SUCH AS CLASSIFICATION AND PREDICTION, CLUSTERING, OUTLIER DETECTION, ASSOCIATION RULES, SEQUENCE ANALYSIS, TEXT MINING, SOCIAL NETWORK ANALYSIS, SENTIMENT ANALYSIS, AND MORE. DATA MINING TECHNIQUES ARE GROWING IN POPULARITY IN A BROAD RANGE OF AREAS, FROM BANKING TO INSURANCE, RETAIL, TELECOM, MEDICINE, RESEARCH, AND GOVERNMENT. THIS BOOK FOCUSES ON THE MODELING PHASE OF THE DATA MINING PROCESS, ALSO ADDRESSING DATA EXPLORATION AND MODEL EVALUATION. WITH THREE IN-DEPTH CASE STUDIES, A QUICK REFERENCE GUIDE, BIBLIOGRAPHY, AND LINKS TO A WEALTH OF ONLINE RESOURCES, R AND DATA MINING IS A VALUABLE, PRACTICAL GUIDE TO A POWERFUL METHOD OF ANALYSIS. PRESENTS AN INTRODUCTION INTO USING R FOR DATA MINING APPLICATIONS, COVERING MOST POPULAR DATA MINING TECHNIQUES PROVIDES CODE EXAMPLES AND DATA SO THAT READERS CAN EASILY LEARN THE TECHNIQUES FEATURES CASE STUDIES IN REAL-WORLD APPLICATIONS TO HELP READERS APPLY THE TECHNIQUES IN THEIR WORK

R IN A NUTSHELL - JOSEPH ADLER 2012-09-26

IF YOU'RE CONSIDERING R FOR STATISTICAL COMPUTING AND DATA VISUALIZATION, THIS BOOK PROVIDES A QUICK AND PRACTICAL GUIDE TO JUST ABOUT EVERYTHING YOU CAN DO WITH THE OPEN SOURCE R LANGUAGE AND SOFTWARE ENVIRONMENT. YOU'LL LEARN HOW TO WRITE R FUNCTIONS AND USE R PACKAGES TO HELP YOU PREPARE, VISUALIZE, AND ANALYZE DATA. AUTHOR JOSEPH ADLER ILLUSTRATES EACH PROCESS WITH A WEALTH OF EXAMPLES FROM MEDICINE, BUSINESS, AND SPORTS. UPDATED FOR R 2.14 AND 2.15, THIS SECOND EDITION INCLUDES NEW AND EXPANDED CHAPTERS ON R PERFORMANCE, THE GGLOT2 DATA VISUALIZATION PACKAGE, AND PARALLEL R COMPUTING WITH HADOOP. GET STARTED QUICKLY WITH AN R TUTORIAL AND HUNDREDS OF EXAMPLES EXPLORE R SYNTAX, OBJECTS, AND OTHER LANGUAGE DETAILS FIND THOUSANDS OF USER-CONTRIBUTED R PACKAGES ONLINE, INCLUDING BIOCONDUCTOR LEARN HOW TO USE R TO PREPARE DATA FOR ANALYSIS VISUALIZE YOUR DATA WITH R'S GRAPHICS, LATTICE, AND GGLOT2 PACKAGES USE R TO CALCULATE STATISTICAL TESTS, FIT MODELS, AND COMPUTE PROBABILITY DISTRIBUTIONS SPEED UP INTENSIVE COMPUTATIONS BY WRITING PARALLEL R PROGRAMS FOR HADOOP GET A COMPLETE DESKTOP REFERENCE TO R

R FOR DATA SCIENCE - HADLEY WICKHAM 2016-12-12

LEARN HOW TO USE R TO TURN RAW DATA INTO INSIGHT, KNOWLEDGE, AND UNDERSTANDING. THIS BOOK INTRODUCES YOU TO R, RSTUDIO, AND THE TIDYVERSE, A COLLECTION OF R PACKAGES DESIGNED TO WORK TOGETHER TO MAKE DATA SCIENCE FAST, FLUENT, AND FUN. SUITABLE FOR READERS WITH NO PREVIOUS PROGRAMMING EXPERIENCE, R FOR DATA SCIENCE IS DESIGNED TO GET YOU DOING DATA SCIENCE AS QUICKLY AS POSSIBLE. AUTHORS HADLEY WICKHAM AND GARRETT GROLEMUND GUIDE YOU THROUGH THE STEPS OF IMPORTING, WRANGLING, EXPLORING, AND MODELING YOUR DATA AND COMMUNICATING THE RESULTS. YOU'LL GET A COMPLETE, BIG-PICTURE UNDERSTANDING OF THE DATA SCIENCE CYCLE, ALONG WITH BASIC TOOLS YOU NEED TO MANAGE THE DETAILS. EACH SECTION OF THE BOOK IS PAIRED WITH EXERCISES TO HELP YOU PRACTICE WHAT YOU'VE LEARNED ALONG THE WAY. YOU'LL LEARN HOW TO: WRANGLE—TRANSFORM YOUR DATASETS INTO A FORM CONVENIENT FOR ANALYSIS PROGRAM—LEARN POWERFUL R TOOLS FOR SOLVING DATA PROBLEMS WITH GREATER CLARITY AND EASE EXPLORE—EXAMINE YOUR DATA, GENERATE HYPOTHESES, AND QUICKLY TEST THEM MODEL—PROVIDE A LOW-DIMENSIONAL SUMMARY THAT CAPTURES TRUE "SIGNALS" IN YOUR DATASET COMMUNICATE—LEARN R MARKDOWN FOR INTEGRATING PROSE, CODE, AND RESULTS

LEARNING TO PROGRAM - STEVEN FOOTE 2014-11-04

HELPS READERS DEVELOP A SOLID FOUNDATION IN PROGRAMMING, TEACHING CONCEPTS THAT CAN BE USED WITH ANY MODERN PROGRAMMING LANGUAGE, COVERING SUCH TOPICS AS TEXT EDITORS, BUILD TOOLS, PROGRAMMING STANDARDS, REGULAR EXPRESSIONS, AND DEBUGGING.

STATISTICAL ANALYSIS WITH MISSING DATA - RODERICK J. A. LITTLE 2019-03-21

AN UP-TO-DATE, COMPREHENSIVE TREATMENT OF A CLASSIC TEXT ON MISSING DATA IN STATISTICS THE TOPIC OF MISSING DATA HAS GAINED CONSIDERABLE ATTENTION IN RECENT DECADES. THIS NEW EDITION BY TWO ACKNOWLEDGED EXPERTS ON THE SUBJECT OFFERS AN UP-TO-DATE ACCOUNT OF PRACTICAL METHODOLOGY FOR HANDLING MISSING DATA PROBLEMS. BLENDING THEORY AND APPLICATION, AUTHORS RODERICK LITTLE AND DONALD RUBIN REVIEW HISTORICAL APPROACHES TO THE SUBJECT AND DESCRIBE SIMPLE METHODS FOR MULTIVARIATE ANALYSIS WITH MISSING VALUES. THEY THEN PROVIDE A COHERENT THEORY FOR ANALYSIS OF PROBLEMS BASED ON LIKELIHOODS DERIVED FROM STATISTICAL MODELS FOR THE DATA AND THE MISSING DATA MECHANISM, AND THEN THEY APPLY THE THEORY TO A WIDE RANGE OF IMPORTANT MISSING DATA PROBLEMS.

STATISTICAL ANALYSIS WITH MISSING DATA, THIRD EDITION STARTS BY INTRODUCING READERS TO THE SUBJECT AND APPROACHES TOWARD SOLVING IT. IT LOOKS AT THE PATTERNS AND MECHANISMS THAT CREATE THE MISSING DATA, AS WELL AS A TAXONOMY OF MISSING DATA. IT THEN GOES ON TO EXAMINE MISSING DATA IN EXPERIMENTS, BEFORE DISCUSSING COMPLETE-CASE AND AVAILABLE-CASE ANALYSIS, INCLUDING WEIGHTING METHODS. THE NEW EDITION EXPANDS ITS COVERAGE TO INCLUDE RECENT WORK ON TOPICS SUCH AS NONRESPONSE IN SAMPLE SURVEYS, CAUSAL INFERENCE, DIAGNOSTIC METHODS, AND SENSITIVITY ANALYSIS, AMONG A HOST OF OTHER TOPICS. AN UPDATED "CLASSIC" WRITTEN BY RENOWNED AUTHORITIES ON THE SUBJECT FEATURES OVER 150 EXERCISES (INCLUDING MANY NEW ONES) COVERS RECENT WORK ON IMPORTANT METHODS LIKE MULTIPLE IMPUTATION, ROBUST ALTERNATIVES TO WEIGHTING, AND BAYESIAN METHODS REVISES PREVIOUS TOPICS BASED ON PAST STUDENT FEEDBACK AND CLASS EXPERIENCE CONTAINS AN UPDATED AND EXPANDED BIBLIOGRAPHY STATISTICAL ANALYSIS WITH MISSING DATA, THIRD EDITION IS AN IDEAL TEXTBOOK FOR UPPER UNDERGRADUATE AND/OR BEGINNING GRADUATE LEVEL STUDENTS OF THE SUBJECT. IT IS ALSO AN EXCELLENT SOURCE OF INFORMATION FOR APPLIED STATISTICIANS AND PRACTITIONERS IN GOVERNMENT AND INDUSTRY.

SAFETY, RELIABILITY AND RISK ANALYSIS - R.D.J.M. STEENBERGEN 2013-09-18

DURING THE LAST DECADE THERE HAVE BEEN INCREASING SOCIETAL CONCERNS OVER SUSTAINABLE DEVELOPMENTS FOCUSING ON THE CONSERVATION OF THE ENVIRONMENT, THE WELFARE AND SAFETY OF THE INDIVIDUAL AND AT THE SAME TIME THE OPTIMAL ALLOCATION OF AVAILABLE NATURAL AND FINANCIAL RESOURCES. AS A CONSEQUENCE THE METHODS OF RISK AND RELIABILITY ANALYSIS ARE BECOMI

MIXTURE MODELS AND APPLICATIONS - NIZAR BOUGUILA 2019-08-13

THIS BOOK FOCUSES ON RECENT ADVANCES, APPROACHES, THEORIES AND APPLICATIONS RELATED TO MIXTURE MODELS. IN PARTICULAR, IT PRESENTS RECENT UNSUPERVISED AND SEMI-SUPERVISED FRAMEWORKS THAT CONSIDER MIXTURE MODELS AS THEIR MAIN TOOL. THE CHAPTERS CONSIDERS MIXTURE MODELS INVOLVING SEVERAL INTERESTING AND CHALLENGING PROBLEMS SUCH AS PARAMETERS ESTIMATION, MODEL SELECTION, FEATURE SELECTION, ETC. THE GOAL OF THIS BOOK IS TO SUMMARIZE THE RECENT ADVANCES AND MODERN APPROACHES RELATED TO THESE PROBLEMS. EACH CONTRIBUTOR PRESENTS NOVEL RESEARCH, A PRACTICAL STUDY, OR NOVEL APPLICATIONS BASED ON MIXTURE MODELS, OR A SURVEY OF THE LITERATURE. REPORTS ADVANCES ON CLASSIC PROBLEMS IN MIXTURE MODELING SUCH AS PARAMETER ESTIMATION, MODEL SELECTION, AND FEATURE SELECTION; PRESENT THEORETICAL AND PRACTICAL DEVELOPMENTS IN MIXTURE-BASED MODELING AND THEIR IMPORTANCE IN DIFFERENT APPLICATIONS; DISCUSSES PERSPECTIVES AND CHALLENGING FUTURE WORKS RELATED TO MIXTURE MODELING.

AN INTRODUCTION TO APPLIED MULTIVARIATE ANALYSIS WITH R - BRIAN EVERITT 2011-04-23

THE MAJORITY OF DATA SETS COLLECTED BY RESEARCHERS IN ALL DISCIPLINES ARE MULTIVARIATE, MEANING THAT SEVERAL MEASUREMENTS, OBSERVATIONS, OR RECORDINGS

ARE TAKEN ON EACH OF THE UNITS IN THE DATA SET. THESE UNITS MIGHT BE HUMAN SUBJECTS, ARCHAEOLOGICAL ARTIFACTS, COUNTRIES, OR A VAST VARIETY OF OTHER THINGS. IN A FEW CASES, IT MAY BE SENSIBLE TO ISOLATE EACH VARIABLE AND STUDY IT SEPARATELY, BUT IN MOST INSTANCES ALL THE VARIABLES NEED TO BE EXAMINED SIMULTANEOUSLY IN ORDER TO FULLY GRASP THE STRUCTURE AND KEY FEATURES OF THE DATA. FOR THIS PURPOSE, ONE OR ANOTHER METHOD OF MULTIVARIATE ANALYSIS MIGHT BE HELPFUL, AND IT IS WITH SUCH METHODS THAT THIS BOOK IS LARGELY CONCERNED. MULTIVARIATE ANALYSIS INCLUDES METHODS BOTH FOR DESCRIBING AND EXPLORING SUCH DATA AND FOR MAKING FORMAL INFERENCES ABOUT THEM. THE AIM OF ALL THE TECHNIQUES IS, IN GENERAL SENSE, TO DISPLAY OR EXTRACT THE SIGNAL IN THE DATA IN THE PRESENCE OF NOISE AND TO FIND OUT WHAT THE DATA SHOW US IN THE MIDST OF THEIR APPARENT CHAOS. AN INTRODUCTION TO APPLIED MULTIVARIATE ANALYSIS WITH R EXPLORES THE CORRECT APPLICATION OF THESE METHODS SO AS TO EXTRACT AS MUCH INFORMATION AS POSSIBLE FROM THE DATA AT HAND, PARTICULARLY AS SOME TYPE OF GRAPHICAL REPRESENTATION, VIA THE R SOFTWARE. THROUGHOUT THE BOOK, THE AUTHORS GIVE MANY EXAMPLES OF R CODE USED TO APPLY THE MULTIVARIATE TECHNIQUES TO MULTIVARIATE DATA.

ANALYSIS OF CATEGORICAL DATA WITH R - CHRISTOPHER R. BILDER 2014-08-11

LEARN HOW TO PROPERLY ANALYZE CATEGORICAL DATA ANALYSIS OF CATEGORICAL DATA WITH R PRESENTS A MODERN ACCOUNT OF CATEGORICAL DATA ANALYSIS USING THE POPULAR R SOFTWARE. IT COVERS RECENT TECHNIQUES OF MODEL BUILDING AND ASSESSMENT FOR BINARY, MULTICATEGORY, AND COUNT RESPONSE VARIABLES AND DISCUSSES FUNDAMENTALS, SUCH AS ODDS RATIO AND PROBABILITY ESTIMATION. THE AUTHORS GIVE DETAILED ADVICE AND GUIDELINES ON WHICH PROCEDURES TO USE AND WHY TO USE THEM. THE USE OF R AS BOTH A DATA ANALYSIS METHOD AND A LEARNING TOOL REQUIRING NO PRIOR EXPERIENCE WITH R, THE TEXT OFFERS AN INTRODUCTION TO THE ESSENTIAL FEATURES AND FUNCTIONS OF R. IT INCORPORATES NUMEROUS EXAMPLES FROM MEDICINE, PSYCHOLOGY, SPORTS, ECOLOGY, AND OTHER AREAS, ALONG WITH EXTENSIVE R CODE AND OUTPUT. THE AUTHORS USE DATA SIMULATION IN R TO HELP READERS UNDERSTAND THE UNDERLYING ASSUMPTIONS OF A PROCEDURE AND THEN TO EVALUATE THE PROCEDURE'S PERFORMANCE. THEY ALSO PRESENT MANY GRAPHICAL DEMONSTRATIONS OF THE FEATURES AND PROPERTIES OF VARIOUS ANALYSIS METHODS. WEB RESOURCE THE DATA SETS AND R PROGRAMS FROM EACH EXAMPLE ARE AVAILABLE AT WWW.CHRISBILDER.COM/CATEGORICAL. THE PROGRAMS INCLUDE CODE USED TO CREATE EVERY PLOT AND PIECE OF OUTPUT. MANY OF THESE PROGRAMS CONTAIN CODE TO DEMONSTRATE ADDITIONAL FEATURES OR TO PERFORM MORE DETAILED ANALYSES THAN WHAT IS IN THE TEXT. DESIGNED TO BE USED IN TANDEM WITH THE BOOK, THE WEBSITE ALSO UNIQUELY PROVIDES VIDEOS OF THE AUTHORS TEACHING A COURSE ON THE SUBJECT. THESE VIDEOS INCLUDE LIVE, IN-CLASS RECORDINGS, WHICH INSTRUCTORS MAY FIND USEFUL IN A BLENDED OR FLIPPED CLASSROOM SETTING. THE VIDEOS ARE ALSO SUITABLE AS A SUBSTITUTE FOR A SHORT COURSE.

ARTIFICIAL INTELLIGENCE WITH PYTHON - PRATEEK JOSHI 2017-01-27

BUILD REAL-WORLD ARTIFICIAL INTELLIGENCE APPLICATIONS WITH PYTHON TO INTELLIGENTLY INTERACT WITH THE WORLD AROUND YOU ABOUT THIS BOOK STEP INTO THE AMAZING WORLD OF INTELLIGENT APPS USING THIS COMPREHENSIVE GUIDE ENTER THE WORLD OF ARTIFICIAL INTELLIGENCE, EXPLORE IT, AND CREATE YOUR OWN APPLICATIONS WORK THROUGH SIMPLE YET INSIGHTFUL EXAMPLES THAT WILL GET YOU UP AND RUNNING WITH ARTIFICIAL INTELLIGENCE IN NO TIME WHO THIS BOOK IS FOR THIS BOOK IS FOR PYTHON DEVELOPERS WHO WANT TO BUILD REAL-WORLD ARTIFICIAL INTELLIGENCE APPLICATIONS. THIS BOOK IS FRIENDLY TO PYTHON BEGINNERS, BUT BEING FAMILIAR WITH PYTHON WOULD BE USEFUL TO PLAY AROUND WITH THE CODE. IT WILL ALSO BE USEFUL FOR EXPERIENCED PYTHON PROGRAMMERS WHO ARE LOOKING TO USE ARTIFICIAL INTELLIGENCE TECHNIQUES IN THEIR EXISTING TECHNOLOGY STACKS. WHAT YOU WILL LEARN REALIZE DIFFERENT CLASSIFICATION AND REGRESSION TECHNIQUES UNDERSTAND THE CONCEPT OF CLUSTERING AND HOW TO USE IT TO AUTOMATICALLY SEGMENT DATA SEE HOW TO BUILD AN INTELLIGENT RECOMMENDER SYSTEM UNDERSTAND LOGIC PROGRAMMING AND HOW TO USE IT BUILD AUTOMATIC SPEECH RECOGNITION SYSTEMS UNDERSTAND THE BASICS OF HEURISTIC SEARCH AND GENETIC PROGRAMMING DEVELOP GAMES USING ARTIFICIAL INTELLIGENCE LEARN HOW REINFORCEMENT LEARNING WORKS DISCOVER HOW TO BUILD INTELLIGENT APPLICATIONS CENTERED ON IMAGES, TEXT, AND TIME SERIES DATA SEE HOW TO USE DEEP LEARNING ALGORITHMS AND BUILD APPLICATIONS BASED ON IT IN DETAIL ARTIFICIAL INTELLIGENCE IS BECOMING INCREASINGLY RELEVANT IN THE MODERN WORLD WHERE EVERYTHING IS DRIVEN BY TECHNOLOGY AND DATA. IT IS USED EXTENSIVELY ACROSS MANY FIELDS SUCH AS SEARCH ENGINES, IMAGE RECOGNITION, ROBOTICS, FINANCE, AND SO ON. WE WILL EXPLORE VARIOUS REAL-WORLD SCENARIOS IN THIS BOOK AND YOU'LL LEARN ABOUT VARIOUS ALGORITHMS THAT CAN BE USED TO BUILD ARTIFICIAL INTELLIGENCE APPLICATIONS. DURING THE COURSE OF THIS BOOK, YOU WILL FIND OUT HOW TO MAKE INFORMED DECISIONS ABOUT WHAT ALGORITHMS TO USE IN A GIVEN CONTEXT. STARTING FROM THE BASICS OF ARTIFICIAL INTELLIGENCE, YOU WILL LEARN HOW TO DEVELOP VARIOUS BUILDING BLOCKS USING DIFFERENT DATA MINING TECHNIQUES. YOU WILL SEE HOW TO IMPLEMENT DIFFERENT ALGORITHMS TO GET THE BEST POSSIBLE RESULTS, AND WILL UNDERSTAND HOW TO APPLY THEM TO REAL-WORLD SCENARIOS. IF YOU WANT TO ADD AN INTELLIGENCE LAYER TO ANY APPLICATION THAT'S BASED ON IMAGES, TEXT, STOCK MARKET, OR SOME OTHER FORM OF DATA, THIS EXCITING BOOK ON ARTIFICIAL INTELLIGENCE WILL DEFINITELY BE YOUR GUIDE!

STYLE AND APPROACH THIS HIGHLY PRACTICAL BOOK WILL SHOW YOU HOW TO IMPLEMENT ARTIFICIAL INTELLIGENCE. THE BOOK PROVIDES MULTIPLE EXAMPLES ENABLING YOU TO CREATE SMART APPLICATIONS TO MEET THE NEEDS OF YOUR ORGANIZATION. IN EVERY CHAPTER, WE EXPLAIN AN ALGORITHM, IMPLEMENT IT, AND THEN BUILD A SMART APPLICATION.

LEARNING STATISTICS WITH R - DANIEL NAVARRO 2013-01-13

"LEARNING STATISTICS WITH R" COVERS THE CONTENTS OF AN INTRODUCTORY STATISTICS CLASS, AS TYPICALLY TAUGHT TO UNDERGRADUATE PSYCHOLOGY STUDENTS, FOCUSING ON THE USE OF THE R STATISTICAL SOFTWARE AND ADOPTING A LIGHT, CONVERSATIONAL STYLE THROUGHOUT. THE BOOK DISCUSSES HOW TO GET STARTED IN R, AND GIVES AN INTRODUCTION TO DATA MANIPULATION AND WRITING SCRIPTS. FROM A STATISTICAL PERSPECTIVE, THE BOOK DISCUSSES DESCRIPTIVE STATISTICS AND GRAPHING FIRST, FOLLOWED BY CHAPTERS ON PROBABILITY THEORY, SAMPLING AND ESTIMATION, AND NULL HYPOTHESIS TESTING. AFTER INTRODUCING THE THEORY, THE BOOK COVERS THE ANALYSIS

OF CONTINGENCY TABLES, T-TESTS, ANOVAS AND REGRESSION. BAYESIAN STATISTICS ARE COVERED AT THE END OF THE BOOK. FOR MORE INFORMATION (AND THE OPPORTUNITY TO CHECK THE BOOK OUT BEFORE YOU BUY!) VISIT [HTTP://UA.EDU.AU/CCS/TEACHING/LRSR](http://ua.edu.au/ccs/teaching/lrsr) OR [HTTP://LEARNINGSTATISTICSWITHR.COM](http://learningstatisticswithr.com)

HANDBOOK OF RESEARCH METHODS AND APPLICATIONS IN EMPIRICAL MICROECONOMICS - HASHIMZADE, NIGAR 2021-11-18

WRITTEN IN A COMPREHENSIVE YET ACCESSIBLE STYLE, THIS HANDBOOK INTRODUCES READERS TO A RANGE OF MODERN EMPIRICAL METHODS WITH APPLICATIONS IN MICROECONOMICS, ILLUSTRATING HOW TO USE TWO OF THE MOST POPULAR SOFTWARE PACKAGES, STATA AND R, IN MICROECONOMETRIC APPLICATIONS.

HANDBOOK OF QUALITATIVE HEALTH RESEARCH FOR EVIDENCE-BASED PRACTICE - KARIN OLSON 2015-10-12

THIS PROGRESSIVE REFERENCE REDEFINES QUALITATIVE RESEARCH AS A CRUCIAL COMPONENT OF EVIDENCE-BASED PRACTICE AND ASSESSES ITS CURRENT AND FUTURE IMPACT ON HEALTHCARE. ITS INTRODUCTORY SECTION EXPLAINS THE VALUE OF SOCIOCULTURAL CONTEXT IN CASE CONCEPTUALIZATION, AND WAYS THIS EVIDENCE CAN BE INTEGRATED WITH QUANTITATIVE FINDINGS TO INFORM AND TRANSFORM PRACTICE. THE BULK OF THE BOOK'S CHAPTERS REVIEW QUALITATIVE RESEARCH IN DIVERSE AREAS, INCLUDING PAIN, TRAUMA, HEART DISEASE, COPD, AND DISABLING CONDITIONS, AND EXAMINE WAYS OF EFFECTIVELY EVALUATING AND APPLYING QUALITATIVE DATA. THIS SEISMIC SHIFT IN PERCEPTION MOVES THE HEALING PROFESSIONS AWAY FROM TRADITIONAL ONE-SIZE-FITS-ALL THINKING AND TOWARD RESPONSIVE, PATIENT-CENTERED CARE. AMONG THE TOPICS IN THE HANDBOOK: 'EXAMINING QUALITATIVE ALTERNATIVES TO CATEGORICAL REPRESENTATION. 'THE WORLD HEALTH ORGANIZATION MODEL OF HEALTH: WHAT EVIDENCE IS NEEDED?' 'QUALITATIVE RESEARCH IN MENTAL HEALTH AND MENTAL ILLNESS. 'QUALITATIVE EVIDENCE IN PEDIATRICS. 'THE CONTRIBUTION OF QUALITATIVE RESEARCH TO MEDICATION ADHERENCE. 'QUALITATIVE EVIDENCE IN HEALTH POLICY ANALYSIS. THE HANDBOOK OF QUALITATIVE HEALTH RESEARCH FOR EVIDENCE-BASED PRACTICE OFFERS HEALTH AND CLINICAL PSYCHOLOGISTS, REHABILITATION SPECIALISTS, OCCUPATIONAL AND PHYSICAL THERAPISTS, NURSES, FAMILY PHYSICIANS AND OTHER PRIMARY CARE PROVIDERS NEW WAYS FOR UNDERSTANDING PATIENTS' HEALTH-RELATED EXPERIENCES AND OPENS UP NEW WAYS FOR DEVELOPING INTERVENTIONS INTENDED TO IMPROVE HEALTH OUTCOMES.

R FOR EVERYONE - JARED P. LANDER 2017-06-13

STATISTICAL COMPUTATION FOR PROGRAMMERS, SCIENTISTS, QUANTS, EXCEL USERS, AND OTHER PROFESSIONALS USING THE OPEN SOURCE R LANGUAGE, YOU CAN BUILD POWERFUL STATISTICAL MODELS TO ANSWER MANY OF YOUR MOST CHALLENGING QUESTIONS. R HAS TRADITIONALLY BEEN DIFFICULT FOR NON-STATISTICIANS TO LEARN, AND MOST R BOOKS ASSUME FAR TOO MUCH KNOWLEDGE TO BE OF HELP. R FOR EVERYONE, SECOND EDITION, IS THE SOLUTION. DRAWING ON HIS UNSURPASSED EXPERIENCE TEACHING NEW USERS, PROFESSIONAL DATA SCIENTIST JARED P. LANDER HAS WRITTEN THE PERFECT TUTORIAL FOR ANYONE NEW TO STATISTICAL PROGRAMMING AND MODELING. ORGANIZED TO MAKE LEARNING EASY AND INTUITIVE, THIS GUIDE FOCUSES ON THE 20 PERCENT OF R FUNCTIONALITY YOU'LL NEED TO ACCOMPLISH 80 PERCENT OF MODERN DATA TASKS. LANDER'S SELF-CONTAINED CHAPTERS START WITH THE ABSOLUTE BASICS, OFFERING EXTENSIVE HANDS-ON PRACTICE AND SAMPLE CODE. YOU'LL DOWNLOAD AND INSTALL R; NAVIGATE AND USE THE R ENVIRONMENT; MASTER BASIC PROGRAM CONTROL, DATA IMPORT, MANIPULATION, AND VISUALIZATION; AND WALK THROUGH SEVERAL ESSENTIAL TESTS. THEN, BUILDING ON THIS FOUNDATION, YOU'LL CONSTRUCT SEVERAL COMPLETE MODELS, BOTH LINEAR AND NONLINEAR, AND USE SOME DATA MINING TECHNIQUES. AFTER ALL THIS YOU'LL MAKE YOUR CODE REPRODUCIBLE WITH LATEX, RMARKDOWN, AND SHINY. BY THE TIME YOU'RE DONE, YOU WON'T JUST KNOW HOW TO WRITE R PROGRAMS, YOU'LL BE READY TO TACKLE THE STATISTICAL PROBLEMS YOU CARE ABOUT MOST. COVERAGE INCLUDES EXPLORE R, RSTUDIO, AND R PACKAGES USE R FOR MATH: VARIABLE TYPES, VECTORS, CALLING FUNCTIONS, AND MORE EXPLOIT DATA STRUCTURES, INCLUDING DATA.FRAMES, MATRICES, AND LISTS READ MANY DIFFERENT TYPES OF DATA CREATE ATTRACTIVE, INTUITIVE STATISTICAL GRAPHICS WRITE USER-DEFINED FUNCTIONS CONTROL PROGRAM FLOW WITH IF, IFELSE, AND COMPLEX CHECKS IMPROVE PROGRAM EFFICIENCY WITH GROUP MANIPULATIONS COMBINE AND RESHAPE MULTIPLE DATASETS MANIPULATE STRINGS USING R'S FACILITIES AND REGULAR EXPRESSIONS CREATE NORMAL, BINOMIAL, AND POISSON PROBABILITY DISTRIBUTIONS BUILD LINEAR, GENERALIZED LINEAR, AND NONLINEAR MODELS PROGRAM BASIC STATISTICS: MEAN, STANDARD DEVIATION, AND T-TESTS TRAIN MACHINE LEARNING MODELS ASSESS THE QUALITY OF MODELS AND VARIABLE SELECTION PREVENT OVERFITTING AND PERFORM VARIABLE SELECTION, USING THE ELASTIC NET AND BAYESIAN METHODS ANALYZE UNIVARIATE AND MULTIVARIATE TIME SERIES DATA GROUP DATA VIA K-MEANS AND HIERARCHICAL CLUSTERING PREPARE REPORTS, SLIDESHOWS, AND WEB PAGES WITH KNITR DISPLAY INTERACTIVE DATA WITH RMARKDOWN AND HTMLWIDGETS IMPLEMENT DASHBOARDS WITH SHINY BUILD REUSABLE R PACKAGES WITH DEVTOOLS AND RCPP REGISTER YOUR PRODUCT AT [INFORMIT.COM/REGISTER](http://informit.com/register) FOR CONVENIENT ACCESS TO DOWNLOADS, UPDATES, AND CORRECTIONS AS THEY BECOME AVAILABLE.

DOING META-ANALYSIS WITH R - MATHIAS HARRER 2021-09-15

DOING META-ANALYSIS WITH R: A HANDS-ON GUIDE SERVES AS AN ACCESSIBLE INTRODUCTION ON HOW META-ANALYSES CAN BE CONDUCTED IN R. ESSENTIAL STEPS FOR META-ANALYSIS ARE COVERED, INCLUDING CALCULATION AND POOLING OF OUTCOME MEASURES, FOREST PLOTS, HETEROGENEITY DIAGNOSTICS, SUBGROUP ANALYSES, META-REGRESSION, METHODS TO CONTROL FOR PUBLICATION BIAS, RISK OF BIAS ASSESSMENTS AND PLOTTING TOOLS. ADVANCED BUT HIGHLY RELEVANT TOPICS SUCH AS NETWORK META-ANALYSIS, MULTI-THREE-LEVEL META-ANALYSES, BAYESIAN META-ANALYSIS APPROACHES AND SEM META-ANALYSIS ARE ALSO COVERED. A COMPANION R PACKAGE, DMETAR, IS INTRODUCED AT THE BEGINNING OF THE GUIDE. IT CONTAINS DATA SETS AND SEVERAL HELPER FUNCTIONS FOR THE META AND METAFOR PACKAGE USED IN THE GUIDE. THE PROGRAMMING AND STATISTICAL BACKGROUND COVERED IN THE BOOK ARE KEPT AT A NON-EXPERT LEVEL, MAKING THE BOOK WIDELY ACCESSIBLE. FEATURES • CONTAINS TWO INTRODUCTORY CHAPTERS ON HOW TO SET UP AN R ENVIRONMENT AND DO BASIC IMPORTS/MANIPULATIONS OF META-ANALYSIS DATA, INCLUDING EXERCISES • DESCRIBES STATISTICAL CONCEPTS CLEARLY AND CONCISELY BEFORE APPLYING THEM IN R • INCLUDES STEP-BY-STEP GUIDANCE THROUGH THE CODING REQUIRED TO PERFORM META-ANALYSES, AND A COMPANION R PACKAGE FOR THE BOOK

MACHINE LEARNING, OPTIMIZATION, AND DATA SCIENCE - GIUSEPPE NICOSIA 2020-01-03

THIS BOOK CONSTITUTES THE POST-CONFERENCE PROCEEDINGS OF THE 5TH INTERNATIONAL CONFERENCE ON MACHINE LEARNING, OPTIMIZATION, AND DATA SCIENCE, LOD 2019, HELD IN SIENA, ITALY, IN SEPTEMBER 2019. THE 54 FULL PAPERS PRESENTED WERE CAREFULLY REVIEWED AND SELECTED FROM 158 SUBMISSIONS. THE PAPERS COVER TOPICS IN THE FIELD OF MACHINE LEARNING, ARTIFICIAL INTELLIGENCE, REINFORCEMENT LEARNING, COMPUTATIONAL OPTIMIZATION AND DATA SCIENCE PRESENTING A SUBSTANTIAL ARRAY OF IDEAS, TECHNOLOGIES, ALGORITHMS, METHODS AND APPLICATIONS.

REINFORCEMENT LEARNING, SECOND EDITION - RICHARD S. SUTTON 2018-11-13

THE SIGNIFICANTLY EXPANDED AND UPDATED NEW EDITION OF A WIDELY USED TEXT ON REINFORCEMENT LEARNING, ONE OF THE MOST ACTIVE RESEARCH AREAS IN ARTIFICIAL INTELLIGENCE. REINFORCEMENT LEARNING, ONE OF THE MOST ACTIVE RESEARCH AREAS IN ARTIFICIAL INTELLIGENCE, IS A COMPUTATIONAL APPROACH TO LEARNING WHEREBY AN AGENT TRIES TO MAXIMIZE THE TOTAL AMOUNT OF REWARD IT RECEIVES WHILE INTERACTING WITH A COMPLEX, UNCERTAIN ENVIRONMENT. IN REINFORCEMENT LEARNING, RICHARD SUTTON AND ANDREW BARTO PROVIDE A CLEAR AND SIMPLE ACCOUNT OF THE FIELD'S KEY IDEAS AND ALGORITHMS. THIS SECOND EDITION HAS BEEN SIGNIFICANTLY EXPANDED AND UPDATED, PRESENTING NEW TOPICS AND UPDATING COVERAGE OF OTHER TOPICS. LIKE THE FIRST EDITION, THIS SECOND EDITION FOCUSES ON CORE ONLINE LEARNING ALGORITHMS, WITH THE MORE MATHEMATICAL MATERIAL SET OFF IN SHADED BOXES. PART I COVERS AS MUCH OF REINFORCEMENT LEARNING AS POSSIBLE WITHOUT GOING BEYOND THE TABULAR CASE FOR WHICH EXACT SOLUTIONS CAN BE FOUND. MANY ALGORITHMS PRESENTED IN THIS PART ARE NEW TO THE SECOND EDITION, INCLUDING UCB, EXPECTED SARSA, AND DOUBLE LEARNING. PART II EXTENDS THESE IDEAS TO FUNCTION APPROXIMATION, WITH NEW SECTIONS ON SUCH TOPICS AS ARTIFICIAL NEURAL NETWORKS AND THE FOURIER BASIS, AND OFFERS EXPANDED TREATMENT OF OFF-POLICY LEARNING AND POLICY-GRADIENT METHODS. PART III HAS NEW CHAPTERS ON REINFORCEMENT LEARNING'S RELATIONSHIPS TO PSYCHOLOGY AND NEUROSCIENCE, AS WELL AS AN UPDATED CASE-STUDIES CHAPTER INCLUDING ALPHAGO AND ALPHAGO ZERO, ATARI GAME PLAYING, AND IBM WATSON'S WAGERING STRATEGY. THE FINAL CHAPTER DISCUSSES THE FUTURE SOCIETAL IMPACTS OF REINFORCEMENT LEARNING.

DATA SCIENCE ALGORITHMS IN A WEEK - DVID NATINGGA 2018-10-31

BUILD A STRONG FOUNDATION OF MACHINE LEARNING ALGORITHMS IN 7 DAYS KEY FEATURES USE PYTHON AND ITS WIDE ARRAY OF MACHINE LEARNING LIBRARIES TO BUILD PREDICTIVE MODELS LEARN THE BASICS OF THE 7 MOST WIDELY USED MACHINE LEARNING ALGORITHMS WITHIN A WEEK KNOW WHEN AND WHERE TO APPLY DATA SCIENCE ALGORITHMS USING THIS GUIDE BOOK DESCRIPTION MACHINE LEARNING APPLICATIONS ARE HIGHLY AUTOMATED AND SELF-MODIFYING, AND CONTINUE TO IMPROVE OVER TIME WITH MINIMAL HUMAN INTERVENTION, AS THEY LEARN FROM THE TRAINED DATA. TO ADDRESS THE COMPLEX NATURE OF VARIOUS REAL-WORLD DATA PROBLEMS, SPECIALIZED MACHINE LEARNING ALGORITHMS HAVE BEEN DEVELOPED. THROUGH ALGORITHMIC AND STATISTICAL ANALYSIS, THESE MODELS CAN BE LEVERAGED TO GAIN NEW KNOWLEDGE FROM EXISTING DATA AS WELL. DATA SCIENCE ALGORITHMS IN A WEEK ADDRESSES ALL PROBLEMS RELATED TO ACCURATE AND EFFICIENT DATA CLASSIFICATION AND PREDICTION. OVER THE COURSE OF SEVEN DAYS, YOU WILL BE INTRODUCED TO SEVEN ALGORITHMS, ALONG WITH EXERCISES THAT WILL HELP YOU UNDERSTAND DIFFERENT ASPECTS OF MACHINE LEARNING. YOU WILL SEE HOW TO PRE-CLUSTER YOUR DATA TO OPTIMIZE AND CLASSIFY IT FOR LARGE DATASETS. THIS BOOK ALSO GUIDES YOU IN PREDICTING DATA BASED ON EXISTING TRENDS IN YOUR DATASET. THIS BOOK COVERS ALGORITHMS SUCH AS K-NEAREST NEIGHBORS, NAIVE BAYES, DECISION TREES, RANDOM FOREST, K-MEANS, REGRESSION, AND TIME-SERIES ANALYSIS. BY THE END OF THIS BOOK, YOU WILL UNDERSTAND HOW TO CHOOSE MACHINE LEARNING ALGORITHMS FOR CLUSTERING, CLASSIFICATION, AND REGRESSION AND KNOW WHICH IS BEST SUITED FOR YOUR PROBLEM WHAT YOU WILL LEARN UNDERSTAND HOW TO IDENTIFY A DATA SCIENCE PROBLEM CORRECTLY IMPLEMENT WELL-KNOWN MACHINE LEARNING ALGORITHMS EFFICIENTLY USING PYTHON CLASSIFY YOUR DATASETS USING NAIVE BAYES, DECISION TREES, AND RANDOM FOREST WITH ACCURACY DEVISE AN APPROPRIATE PREDICTION SOLUTION USING REGRESSION WORK WITH TIME SERIES DATA TO IDENTIFY RELEVANT DATA EVENTS AND TRENDS CLUSTER YOUR DATA USING THE K-MEANS ALGORITHM WHO THIS BOOK IS FOR THIS BOOK IS FOR ASPIRING DATA SCIENCE PROFESSIONALS WHO ARE FAMILIAR WITH PYTHON AND HAVE A LITTLE BACKGROUND IN STATISTICS. YOU'LL ALSO FIND THIS BOOK USEFUL IF YOU'RE CURRENTLY WORKING WITH DATA SCIENCE ALGORITHMS IN SOME CAPACITY AND WANT TO EXPAND YOUR SKILL SET

ENCYCLOPEDIA OF SCHOOL PSYCHOLOGY - T. STUART WATSON 2012-12-06

- ONE VOLUME-REFERENCE WORK WITH APPROXIMATELY 250 ENTRIES, ORGANIZED ALPHABETICALLY FOR EASE OF USE AND OF LOCATING SUBJECT MATTER. EACH ENTRY WILL CONTAIN 5-8 REFERENCES AS WELL AS A BIBLIOGRAPHY OF REFERENCES AND SUGGESTED READINGS - AN AUTHORITATIVE REFERENCE TEXT ON SCHOOL PSYCHOLOGY THAT WOULD APPEAL TO, AND BE UNDERSTOOD BY, A BROAD AUDIENCE. - WILL ASSIST INDIVIDUALS IN ACQUIRING A GENERAL UNDERSTANDING OF SOME OF THE THEORIES, PRACTICES, AND LANGUAGE ASSOCIATED WITH THE FIELD OF SCHOOL PSYCHOLOGY

TARGETED LEARNING IN DATA SCIENCE - MARK J. VAN DER LAAN 2018-03-28

THIS TEXTBOOK FOR GRADUATE STUDENTS IN STATISTICS, DATA SCIENCE, AND PUBLIC HEALTH DEALS WITH THE PRACTICAL CHALLENGES THAT COME WITH BIG, COMPLEX, AND DYNAMIC DATA. IT PRESENTS A SCIENTIFIC ROADMAP TO TRANSLATE REAL-WORLD DATA SCIENCE APPLICATIONS INTO FORMAL STATISTICAL ESTIMATION PROBLEMS BY USING THE GENERAL TEMPLATE OF TARGETED MAXIMUM LIKELIHOOD ESTIMATORS. THESE TARGETED MACHINE LEARNING ALGORITHMS ESTIMATE QUANTITIES OF INTEREST WHILE STILL PROVIDING VALID INFERENCE. TARGETED LEARNING METHODS WITHIN DATA SCIENCE AREA CRUCIAL COMPONENT FOR SOLVING SCIENTIFIC PROBLEMS IN THE MODERN AGE. THE TECHNIQUES CAN ANSWER COMPLEX QUESTIONS INCLUDING OPTIMAL RULES FOR ASSIGNING TREATMENT BASED ON LONGITUDINAL DATA WITH TIME-DEPENDENT CONFOUNDING, AS WELL AS OTHER ESTIMANDS IN DEPENDENT DATA STRUCTURES, SUCH AS NETWORKS. INCLUDED IN TARGETED LEARNING IN DATA SCIENCE ARE DEMONSTRATIONS WITH SOFTWARE PACKAGES AND REAL DATA SETS THAT PRESENT A CASE THAT TARGETED LEARNING IS CRUCIAL FOR THE NEXT GENERATION OF STATISTICIANS AND DATA SCIENTISTS. THIS BOOK IS A SEQUEL TO THE FIRST TEXTBOOK ON MACHINE LEARNING FOR CAUSAL INFERENCE, TARGETED LEARNING, PUBLISHED IN 2011. MARK VAN DER LAAN, PHD, IS JIANN-PING HSU/KARL E. PEACE PROFESSOR OF BIostatISTICS AND STATISTICS AT UC BERKELEY. HIS RESEARCH INTERESTS

INCLUDE STATISTICAL METHODS IN GENOMICS, SURVIVAL ANALYSIS, CENSORED DATA, MACHINE LEARNING, SEMIPARAMETRIC MODELS, CAUSAL INFERENCE, AND TARGETED LEARNING. DR. VAN DER LAAN RECEIVED THE 2004 MORTIMER SPIEGELMAN AWARD, THE 2005 VAN DANTZIG AWARD, THE 2005 COPSS SNEDECOR AWARD, THE 2005 COPSS PRESIDENTIAL AWARD, AND HAS GRADUATED OVER 40 PHD STUDENTS IN BIostatISTICS AND STATISTICS. SHERRI ROSE, PhD, IS ASSOCIATE PROFESSOR OF HEALTH CARE POLICY (BIostatISTICS) AT HARVARD MEDICAL SCHOOL. HER WORK IS CENTERED ON DEVELOPING AND INTEGRATING INNOVATIVE STATISTICAL APPROACHES TO ADVANCE HUMAN HEALTH. DR. ROSE'S METHODOLOGICAL RESEARCH FOCUSES ON NONPARAMETRIC MACHINE LEARNING FOR CAUSAL INFERENCE AND PREDICTION. SHE CO-LEADS THE HEALTH POLICY DATA SCIENCE LAB AND CURRENTLY SERVES AS AN ASSOCIATE EDITOR FOR THE JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION AND BIostatISTICS.

SOLVING DIFFERENTIAL EQUATIONS IN R - KARLINE SOETAERT 2012-06-06
MATHEMATICS PLAYS AN IMPORTANT ROLE IN MANY SCIENTIFIC AND ENGINEERING DISCIPLINES. THIS BOOK DEALS WITH THE NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS, A VERY IMPORTANT BRANCH OF MATHEMATICS. OUR AIM IS TO GIVE A PRACTICAL AND THEORETICAL ACCOUNT OF HOW TO SOLVE A LARGE VARIETY OF DIFFERENTIAL EQUATIONS, COMPRISING ORDINARY DIFFERENTIAL EQUATIONS, INITIAL VALUE PROBLEMS AND BOUNDARY VALUE PROBLEMS, DIFFERENTIAL ALGEBRAIC EQUATIONS, PARTIAL DIFFERENTIAL EQUATIONS AND DELAY DIFFERENTIAL EQUATIONS. THE SOLUTION OF DIFFERENTIAL EQUATIONS USING R IS THE MAIN FOCUS OF THIS BOOK. IT IS THEREFORE INTENDED FOR THE PRACTITIONER, THE STUDENT AND THE SCIENTIST, WHO WANTS TO KNOW HOW TO USE R FOR SOLVING DIFFERENTIAL EQUATIONS. HOWEVER, IT HAS BEEN OUR GOAL THAT NON-MATHEMATICIANS SHOULD AT LEAST UNDERSTAND THE BASICS OF THE METHODS, WHILE OBTAINING ENTRANCE INTO THE RELEVANT LITERATURE THAT PROVIDES MORE MATHEMATICAL BACKGROUND. THEREFORE, EACH CHAPTER THAT DEALS WITH R EXAMPLES IS PRECEDED BY A CHAPTER WHERE THE THEORY BEHIND THE NUMERICAL METHODS BEING USED IS INTRODUCED. IN THE SECTIONS THAT DEAL WITH THE USE OF R FOR SOLVING DIFFERENTIAL EQUATIONS, WE HAVE TAKEN EXAMPLES FROM A VARIETY OF DISCIPLINES, INCLUDING BIOLOGY, CHEMISTRY, PHYSICS, PHARMACOKINETICS. MANY EXAMPLES ARE WELL-KNOWN TEST EXAMPLES, USED FREQUENTLY IN THE FIELD OF NUMERICAL ANALYSIS.

TECHNICAL DATA DIGEST - 1949

GETTING STARTED WITH RSTUDIO - JOHN VERZANI 2011-09-16
DIVE INTO THE RSTUDIO INTEGRATED DEVELOPMENT ENVIRONMENT (IDE) FOR USING AND PROGRAMMING R, THE POPULAR OPEN SOURCE SOFTWARE FOR STATISTICAL COMPUTING AND GRAPHICS. THIS CONCISE BOOK PROVIDES NEW AND EXPERIENCED USERS WITH AN OVERVIEW OF RSTUDIO, AS WELL AS HANDS-ON INSTRUCTIONS FOR ANALYZING DATA, GENERATING REPORTS, AND DEVELOPING R SOFTWARE PACKAGES. THE OPEN SOURCE RSTUDIO IDE BRINGS MANY POWERFUL CODING TOOLS TOGETHER INTO AN INTUITIVE, EASY-TO-LEARN INTERFACE. WITH THIS GUIDE, YOU'LL LEARN HOW TO USE ITS MAIN COMPONENTS—INCLUDING THE CONSOLE, SOURCE CODE EDITOR, AND DATA VIEWER—THROUGH DESCRIPTIONS AND CASE STUDIES. GETTING STARTED WITH RSTUDIO SERVES AS BOTH A REFERENCE AND INTRODUCTION TO THIS UNIQUE IDE. USE RSTUDIO TO PROVIDE ENHANCED SUPPORT FOR INTERACTIVE R SESSIONS CLEAN AND FORMAT RAW DATA QUICKLY WITH SEVERAL RSTUDIO COMPONENTS EDIT R COMMANDS WITH RSTUDIO'S CODE EDITOR, AND COMBINE THEM INTO FUNCTIONS EASILY LOCATE AND USE MORE THAN 3,000 ADD-ON PACKAGES IN R'S CRAN SERVICE DEVELOP AND DOCUMENT YOUR OWN R PACKAGES WITH THE CODE EDITOR AND RELATED COMPONENTS CREATE ONE-CLICK PDF REPORTS IN RSTUDIO WITH A MIX OF TEXT AND R OUTPUT

ADVANCED R - HADLEY WICKHAM 2015-09-15

AN ESSENTIAL REFERENCE FOR INTERMEDIATE AND ADVANCED R PROGRAMMERS ADVANCED R PRESENTS USEFUL TOOLS AND TECHNIQUES FOR ATTACKING MANY TYPES OF R PROGRAMMING PROBLEMS, HELPING YOU AVOID MISTAKES AND DEAD ENDS. WITH MORE THAN TEN YEARS OF EXPERIENCE PROGRAMMING IN R, THE AUTHOR ILLUSTRATES THE ELEGANCE, BEAUTY, AND FLEXIBILITY AT THE HEART OF R. THE BOOK DEVELOPS THE NECESSARY SKILLS TO PRODUCE QUALITY CODE THAT CAN BE USED IN A VARIETY OF CIRCUMSTANCES. YOU WILL LEARN: THE FUNDAMENTALS OF R, INCLUDING STANDARD DATA TYPES AND FUNCTIONS FUNCTIONAL PROGRAMMING AS A USEFUL FRAMEWORK FOR SOLVING WIDE CLASSES OF PROBLEMS THE POSITIVES AND NEGATIVES OF METAPROGRAMMING HOW TO WRITE FAST, MEMORY-EFFICIENT CODE THIS BOOK NOT ONLY HELPS CURRENT R USERS BECOME R PROGRAMMERS BUT ALSO SHOWS EXISTING PROGRAMMERS WHAT'S SPECIAL ABOUT R. INTERMEDIATE R PROGRAMMERS CAN DIVE DEEPER INTO R AND LEARN NEW STRATEGIES FOR SOLVING DIVERSE PROBLEMS WHILE PROGRAMMERS FROM OTHER LANGUAGES CAN LEARN THE DETAILS OF R AND UNDERSTAND WHY R WORKS THE WAY IT DOES.

R PROGRAMMING: AN APPROACH TO DATA ANALYTICS

VENKATESWARAN 2019-06-03

CHAPTER 1 - BASICS OF R, CHAPTER 2 - DATA TYPES IN R, CHAPTER 3 - DATA PREPARATION. CHAPTER 4 - GRAPHICS USING R, CHAPTER 5 - STATISTICAL ANALYSIS USING R, CHAPTER 6 - DATA MINING USING R, CHAPTER 7 - CASE STUDIES. HUGE VOLUMES OF DATA ARE BEING GENERATED BY MANY SOURCES LIKE COMMERCIAL ENTERPRISES, SCIENTIFIC DOMAINS AND GENERAL PUBLIC DAILY. ACCORDING TO A RECENT RESEARCH, DATA PRODUCTION WILL BE 44 TIMES GREATER IN 2020 THAN IT WAS IN 2010. DATA BEING A VITAL RESOURCE FOR BUSINESS ORGANIZATIONS AND OTHER DOMAINS LIKE EDUCATION, HEALTH, MANUFACTURING ETC., ITS MANAGEMENT AND ANALYSIS IS BECOMING INCREASINGLY IMPORTANT. THIS DATA, DUE TO ITS VOLUME, VARIETY AND VELOCITY, OFTEN REFERRED TO AS BIG DATA, ALSO INCLUDES HIGHLY UNSTRUCTURED DATA IN THE FORM OF TEXTUAL DOCUMENTS, WEB PAGES, GRAPHICAL INFORMATION AND SOCIAL MEDIA COMMENTS. SINCE BIG DATA IS CHARACTERISED BY MASSIVE SAMPLE SIZES, HIGH DIMENSIONALITY AND INTRINSIC HETEROGENEITY, TRADITIONAL APPROACHES TO DATA MANAGEMENT, VISUALISATION AND ANALYTICS ARE NO LONGER SATISFACTORILY APPLICABLE. THERE IS THEREFORE AN URGENT NEED FOR NEWER TOOLS, BETTER FRAMEWORKS AND WORKABLE METHODOLOGIES FOR SUCH DATA TO BE APPROPRIATELY CATEGORISED, LOGICALLY SEGMENTED, EFFICIENTLY ANALYSED AND SECURELY MANAGED. THIS REQUIREMENT HAS RESULTED IN AN EMERGING NEW DISCIPLINE OF DATA SCIENCE THAT IS NOW GAINING MUCH ATTENTION WITH RESEARCHERS AND PRACTITIONERS IN THE FIELD OF DATA ANALYTICS.

LATENT VARIABLE MODELING USING R - A. ALEXANDER BEAUJEAN 2014-05-09

THIS STEP-BY-STEP GUIDE IS WRITTEN FOR R AND LATENT VARIABLE MODEL (LVM) NOVICES. UTILIZING A PATH MODEL APPROACH AND FOCUSING ON THE LAVAAN PACKAGE, THIS BOOK IS DESIGNED TO HELP READERS QUICKLY UNDERSTAND LVMs AND THEIR ANALYSIS IN R. THE AUTHOR REVIEWS THE REASONING BEHIND THE SYNTAX SELECTED AND PROVIDES EXAMPLES THAT DEMONSTRATE HOW TO ANALYZE DATA FOR A VARIETY OF LVMs. FEATURING EXAMPLES APPLICABLE TO PSYCHOLOGY, EDUCATION, BUSINESS, AND OTHER SOCIAL AND HEALTH SCIENCES, MINIMAL TEXT IS DEVOTED TO THEORETICAL UNDERPINNINGS. THE MATERIAL IS PRESENTED WITHOUT THE USE OF MATRIX ALGEBRA. AS A WHOLE THE BOOK PREPARES READERS TO WRITE ABOUT AND INTERPRET LVM RESULTS THEY OBTAIN IN R. EACH CHAPTER FEATURES BACKGROUND INFORMATION, BOLDFACED KEY TERMS DEFINED IN THE GLOSSARY, DETAILED INTERPRETATIONS OF R OUTPUT, DESCRIPTIONS OF HOW TO WRITE THE ANALYSIS OF RESULTS FOR PUBLICATION, A SUMMARY, R BASED PRACTICE EXERCISES (WITH SOLUTIONS INCLUDED IN THE BACK OF THE BOOK), AND REFERENCES AND RELATED READINGS. MARGIN NOTES HELP READERS BETTER UNDERSTAND LVMs AND WRITE THEIR OWN R SYNTAX. EXAMPLES USING DATA FROM PUBLISHED WORK ACROSS A VARIETY OF DISCIPLINES DEMONSTRATE HOW TO USE R SYNTAX FOR ANALYZING AND INTERPRETING RESULTS. R FUNCTIONS, SYNTAX, AND THE CORRESPONDING RESULTS APPEAR IN GRAY BOXES TO HELP READERS QUICKLY LOCATE THIS MATERIAL. A UNIQUE INDEX HELPS READERS QUICKLY LOCATE R FUNCTIONS, PACKAGES, AND DATASETS. THE BOOK AND ACCOMPANYING WEBSITE AT [HTTP://BLOGS.BAYLOR.EDU/RLATENTVARIABLE/](http://blogs.baylor.edu/rlatentvariable/) PROVIDES ALL OF THE DATA FOR THE BOOK'S EXAMPLES AND EXERCISES AS WELL AS R SYNTAX SO READERS CAN REPLICATE THE ANALYSES. THE BOOK REVIEWS HOW TO ENTER THE DATA INTO R, SPECIFY THE LVMs, AND OBTAIN AND INTERPRET THE ESTIMATED PARAMETER VALUES. THE BOOK OPENS WITH THE FUNDAMENTALS OF USING R INCLUDING HOW TO DOWNLOAD THE PROGRAM, USE FUNCTIONS, AND ENTER AND MANIPULATE DATA. CHAPTERS 2 AND 3 INTRODUCE AND THEN EXTEND PATH MODELS TO INCLUDE LATENT VARIABLES. CHAPTER 4 SHOWS READERS HOW TO ANALYZE A LATENT VARIABLE MODEL WITH DATA FROM MORE THAN ONE GROUP, WHILE CHAPTER 5 SHOWS HOW TO ANALYZE A LATENT VARIABLE MODEL WITH DATA FROM MORE THAN ONE TIME PERIOD. CHAPTER 6 DEMONSTRATES THE ANALYSIS OF DICHOTOMOUS VARIABLES, WHILE CHAPTER 7 DEMONSTRATES HOW TO ANALYZE LVMs WITH MISSING DATA. CHAPTER 8 FOCUSES ON SAMPLE SIZE DETERMINATION USING MONTE CARLO METHODS, WHICH CAN BE USED WITH A WIDE RANGE OF STATISTICAL MODELS AND ACCOUNT FOR MISSING DATA. THE FINAL CHAPTER EXAMINES HIERARCHICAL LVMs, DEMONSTRATING BOTH HIGHER-ORDER AND BI-FACTOR APPROACHES. THE BOOK CONCLUDES WITH THREE APPENDICES: A REVIEW OF COMMON MEASURES OF MODEL FIT INCLUDING THEIR FORMULAE AND INTERPRETATION; SYNTAX FOR OTHER R LATENT VARIABLE MODELS PACKAGES; AND SOLUTIONS FOR EACH CHAPTER'S EXERCISES. INTENDED AS A SUPPLEMENTARY TEXT FOR GRADUATE AND/OR ADVANCED UNDERGRADUATE COURSES ON LATENT VARIABLE MODELING, FACTOR ANALYSIS, STRUCTURAL EQUATION MODELING, ITEM RESPONSE THEORY, MEASUREMENT, OR MULTIVARIATE STATISTICS TAUGHT IN PSYCHOLOGY, EDUCATION, HUMAN DEVELOPMENT, BUSINESS, ECONOMICS, AND SOCIAL AND HEALTH SCIENCES, THIS BOOK ALSO APPEALS TO RESEARCHERS IN THESE FIELDS. PREREQUISITES INCLUDE FAMILIARITY WITH BASIC STATISTICAL CONCEPTS, BUT KNOWLEDGE OF R IS NOT ASSUMED.