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KEY=BY - LORELAI NATHALIA

R FOR DATA SCIENCE

IMPORT, TIDY, TRANSFORM, VISUALIZE, AND MODEL DATA

"O'Reilly Media, Inc." 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

DATA SCIENCE AND MACHINE LEARNING

MATHEMATICAL AND STATISTICAL METHODS

CRC Press "This textbook is a well-rounded, rigorous, and informative work presenting the mathematics behind modern machine learning techniques. It hits all the right notes: the choice of topics is up-to-date and perfect for a course on data science for mathematics students at the advanced undergraduate or early graduate level. This book fills a sorely-needed gap in the existing literature by not sacrificing depth for breadth, presenting proofs of major theorems and subsequent derivations, as well as providing a copious amount of Python code. I only wish a book like this had been around when I first began my journey!" -Nicholas Hoell, University of Toronto "This is a well-written book that provides a deeper dive into data-scientific methods than many introductory texts. The writing is clear, and the text logically builds up regularization, classification, and decision trees. Compared to its probable competitors, it carves out a unique niche. -Adam Loy, Carleton College The purpose of **Data Science and Machine Learning: Mathematical and Statistical Methods** is to provide an accessible, yet comprehensive textbook intended for students interested in gaining a better understanding of the mathematics and statistics that underpin the rich variety of ideas and machine learning algorithms in data science. **Key Features:** Focuses on mathematical understanding. Presentation is self-contained, accessible, and comprehensive. Extensive list of exercises and worked-out examples. Many concrete algorithms with Python code. Full color throughout. **The Authors:** Dirk P. Kroese, PhD, is a Professor of Mathematics and Statistics at The University of Queensland. He has published over 120 articles and five books in a wide range of areas in mathematics, statistics, data science, machine learning, and Monte Carlo methods. He is a pioneer of the well-known Cross-Entropy method—an adaptive Monte Carlo technique, which is being used around the world to help solve difficult estimation and optimization problems in science, engineering, and finance. Zdravko Botev, PhD, is an Australian Mathematical Science Institute Lecturer in Data Science and Machine Learning with an appointment at the University of New South Wales in Sydney, Australia. He is the recipient of the 2018 Christopher Heyde Medal of the Australian Academy of Science for distinguished research in the Mathematical Sciences. Thomas Taimre, PhD, is a Senior Lecturer of Mathematics and Statistics at The University of Queensland. His research interests range from applied probability and Monte Carlo methods to applied physics and the remarkably universal self-mixing effect in lasers. He has published over 100 articles, holds a patent, and is the coauthor of *Handbook of Monte Carlo Methods* (Wiley). Radislav Vaisman, PhD, is a Lecturer of Mathematics and Statistics at The University of Queensland. His research interests lie at the intersection of applied probability, machine learning, and computer science. He has published over 20 articles and two books.

DATA SCIENCE USING PYTHON AND R

Wiley Learn data science by doing data science! **Data Science Using Python and R** will get you plugged into the world's two most widespread open-source platforms for data science: Python and R. Data science is hot. Bloomberg called data scientist "the hottest job in America." Python and R are the top two open-source data science tools in the world. In **Data Science Using Python and R**, you will learn step-by-step how to produce hands-on solutions to real-world business problems, using state-of-the-art techniques. **Data Science Using Python and R** is written for the general reader with no previous analytics or programming experience. An entire chapter is dedicated to learning the basics of Python and R. Then, each chapter presents step-by-step instructions and walkthroughs for solving data science problems using Python and R. Those with analytics experience will appreciate having a one-stop shop for learning how to do data science using Python and R. Topics covered include data preparation, exploratory data analysis, preparing to model the data, decision trees, model evaluation, misclassification costs, naïve Bayes classification, neural networks, clustering, regression modeling, dimension reduction, and association rules mining. Further, exciting new topics such as random forests and general linear models are also included. The book emphasizes data-driven error costs to enhance profitability, which avoids the common pitfalls that may cost a company millions of dollars. **Data Science Using Python and R** provides exercises at the end of every chapter, totaling over 500 exercises in the book. Readers will therefore have plenty of opportunity to test their newfound data science skills and expertise. In the Hands-on Analysis exercises, readers are challenged to solve interesting business problems using real-world data sets.

SCALA PROGRAMMING FOR BIG DATA ANALYTICS

GET STARTED WITH BIG DATA ANALYTICS USING APACHE SPARK

Apress Gain the key language concepts and programming techniques of Scala in the context of big data analytics and Apache Spark. The book begins by introducing you to Scala and establishes a firm contextual understanding of why you should learn this language, how it stands in comparison to Java, and how Scala is related to Apache Spark for big data analytics. Next, you'll set up the Scala environment ready for examining your first Scala programs. This is followed by sections on Scala fundamentals including mutable/immutable variables, the type hierarchy system, control flow expressions and code blocks. The author discusses functions at length and highlights a number of associated concepts such as functional programming and anonymous functions. The book then delves deeper into Scala's powerful collections system because many of Apache Spark's APIs bear a strong resemblance to Scala collections. Along the way you'll see the development life cycle of a Scala program. This involves compiling and building programs using the industry-standard Scala Build Tool (SBT). You'll cover guidelines related to dependency management using SBT as this is critical for building large Apache Spark applications. **Scala Programming for Big Data Analytics** concludes by demonstrating how you can make use of the concepts to write programs that run on the Apache Spark framework. These programs will provide distributed and parallel computing, which is critical for big data analytics. **What You Will Learn**See the fundamentals of Scala as a general-purpose programming languageUnderstand functional programming and object-oriented programming constructs in ScalaUse Scala collections and functions Develop, package and run Apache Spark applications for big data analyticsWho This Book Is For Data scientists, data analysts and data engineers who intend to use Apache Spark for large-scale analytics. /div

PRACTICAL STATISTICS FOR DATA SCIENTISTS

50 ESSENTIAL CONCEPTS

"O'Reilly Media, Inc." Statistical methods are a key part of data science, yet very few data scientists have any formal statistics training. Courses and books on basic statistics rarely cover the topic from a data science perspective. This practical guide explains how to apply various statistical methods to data science, tells you how to avoid their misuse, and gives you advice on what's important and what's not. Many data science resources incorporate statistical methods but lack a deeper statistical perspective. If you're familiar with the R programming language, and have some exposure to statistics, this quick reference bridges the gap in an accessible, readable format. With this book, you'll learn: Why exploratory data analysis is a key preliminary step in data science How random sampling can reduce bias and yield a higher quality dataset, even with big data How the principles of experimental design yield definitive answers to questions How to use regression to estimate outcomes and detect anomalies Key classification techniques for predicting which categories a record belongs to Statistical machine learning methods that "learn" from data Unsupervised learning methods for extracting meaning from unlabeled data

STATISTICAL METHODS IN WATER RESOURCES

Elsevier Data on water quality and other environmental issues are being collected at an ever-increasing rate. In the past, however, the techniques used by scientists to interpret this data have not progressed as quickly. This is a book of modern statistical methods for analysis of practical problems in water quality and water resources. The last fifteen years have seen major advances in the fields of exploratory data analysis (EDA) and robust statistical methods. The 'real-life' characteristics of environmental data tend to drive analysis towards the use of these methods. These advances are presented in a practical and relevant format. Alternate methods are compared, highlighting the strengths and weaknesses of each as applied to environmental data. Techniques for trend analysis and dealing with water below the detection limit are topics covered, which are of great interest to consultants in water-quality and hydrology, scientists in state, provincial and federal water resources, and geological survey agencies. The practising water resources scientist will find the worked examples using actual field data from case studies of environmental problems, of real value. Exercises at the end of each chapter enable the mechanics of the methodological process to be fully understood, with data sets included on diskette for easy use. The result is a book that is both up-to-date and immediately relevant to ongoing work in the environmental and water sciences.

TIME SERIES ANALYSIS AND FORECASTING

SELECTED CONTRIBUTIONS FROM ITISE 2017

Springer This book presents selected peer-reviewed contributions from the International Work-Conference on Time Series, ITISE 2017, held in Granada, Spain, September 18-20, 2017. It discusses topics in time series analysis and forecasting, including advanced mathematical methodology, computational intelligence methods for time series, dimensionality reduction and similarity measures, econometric models, energy time series forecasting, forecasting in real problems, online learning in time series as well as high-dimensional and complex/big data time series. The series of ITISE conferences provides a forum for scientists, engineers, educators and students to discuss the latest ideas and implementations in the foundations, theory, models and applications in the field of time series analysis and forecasting. It focuses on interdisciplinary and multidisciplinary research encompassing computer science, mathematics, statistics and econometrics.

MACHINE LEARNING WITH R

Packt Publishing Ltd Written as a tutorial to explore and understand the power of R for machine learning. This practical guide that covers all of the need to know topics in a very systematic way. For each machine learning approach, each step in the process is detailed, from preparing the data for analysis to evaluating the results. These steps will build the knowledge you need to apply them to your own data science tasks. Intended for those who want to learn how to use R's machine learning capabilities and gain insight from your data. Perhaps you already know a bit about machine learning, but have never used R; or perhaps you know a little R but are new to machine learning. In either case, this book will get you up and running quickly. It would be helpful to have a bit of familiarity with basic programming concepts, but no prior experience is required.

PYTHON FOR DATA ANALYSIS

DATA WRANGLING WITH PANDAS, NUMPY, AND IPYTHON

"O'Reilly Media, Inc." Get complete instructions for manipulating, processing, cleaning, and crunching datasets in Python. Updated for Python 3.6, the second edition of this hands-on guide is packed with practical case studies that show you how to solve a broad set of data analysis problems effectively. You'll learn the latest versions of pandas, NumPy, IPython, and Jupyter in the process. Written by Wes McKinney, the creator of the Python pandas project, this book is a practical, modern introduction to data science tools in Python. It's ideal for analysts new to Python and for Python programmers new to data science and scientific computing. Data files and related material are available on GitHub. Use the IPython shell and Jupyter notebook for exploratory computing Learn basic and advanced features in NumPy (Numerical Python) Get started with data analysis tools in the pandas library Use flexible tools to load, clean, transform, merge, and reshape data Create informative visualizations with matplotlib Apply the pandas groupby facility to slice, dice, and summarize datasets Analyze and manipulate regular and irregular time series data Learn how to solve real-world data analysis problems with thorough, detailed examples

PRACTICAL DATA SCIENCE WITH R

Simon and Schuster This invaluable addition to any data scientist's library shows you how to apply the R programming language and useful statistical techniques to everyday business situations as well as how to effectively present results to audiences of all levels. To answer the ever-increasing demand for machine learning and analysis, this new edition boasts additional R tools, modeling techniques, and more. Practical Data Science with R, Second Edition takes a practice-oriented approach to explaining basic principles in the ever-expanding field of data science. You'll jump right to real-world use cases as you apply the R programming language and statistical analysis techniques to carefully explained examples based in marketing, business intelligence, and decision support. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications.

R DATA ANALYSIS PROJECTS

BUILD END TO END ANALYTICS SYSTEMS TO GET DEEPER INSIGHTS FROM YOUR DATA

Packt Publishing Ltd Get valuable insights from your data by building data analysis systems from scratch with R. About This Book A handy guide to take your understanding of data analysis with R to the next level Real-world projects that focus on problems in finance, network analysis, social media, and more From data manipulation to analysis to visualization in R, this book will teach you everything you need to know about building end-to-end data analysis pipelines using R Who This Book Is For If you are looking for a book that takes you all the way through the practical application of advanced and effective analytics methodologies in R, then this is the book for you. A fundamental understanding of R and the basic concepts of data analysis is all you need to get started with this book. What You Will Learn Build end-to-end predictive analytics systems in R Build an experimental design to gather your own data and conduct analysis Build a recommender system from scratch using different approaches Use and leverage RShiny to build reactive programming applications Build systems for varied domains including market research, network analysis, social media analysis, and more Explore various R Packages such as RShiny, ggplot, recommenderlab, dplyr, and find out how to use them effectively Communicate modeling results using Shiny Dashboards Perform multi-variate time-series analysis prediction, supplemented with sensitivity analysis and risk modeling In Detail R offers a large variety of packages and libraries for fast and accurate data analysis and visualization. As a result, it's one of the most popularly used languages by data scientists and analysts, or anyone who wants to perform data analysis. This book will demonstrate how you can put to use your existing knowledge of data analysis in R to build highly efficient, end-to-end data analysis pipelines without any hassle. You'll start by building a content-based recommendation system, followed by building a project on sentiment analysis with tweets. You'll implement time-series modeling for anomaly detection, and understand cluster analysis of

streaming data. You'll work through projects on performing efficient market data research, building recommendation systems, and analyzing networks accurately, all provided with easy to follow codes. With the help of these real-world projects, you'll get a better understanding of the challenges faced when building data analysis pipelines, and see how you can overcome them without compromising on the efficiency or accuracy of your systems. The book covers some popularly used R packages such as dplyr, ggplot2, RShiny, and others, and includes tips on using them effectively. By the end of this book, you'll have a better understanding of data analysis with R, and be able to put your knowledge to practical use without any hassle. Style and approach This book takes a unique, learn-as-you-do approach, as you build on your understanding of data analysis progressively with each project. This book is designed in a way that implementing each project will empower you with a unique skill set, and enable you to implement the next project more confidently.

R: DATA ANALYSIS AND VISUALIZATION

Packt Publishing Ltd Master the art of building analytical models using R About This Book Load, wrangle, and analyze your data using the world's most powerful statistical programming language Build and customize publication-quality visualizations of powerful and stunning R graphs Develop key skills and techniques with R to create and customize data mining algorithms Use R to optimize your trading strategy and build up your own risk management system Discover how to build machine learning algorithms, prepare data, and dig deep into data prediction techniques with R Who This Book Is For This course is for data scientist or quantitative analyst who are looking at learning R and take advantage of its powerful analytical design framework. It's a seamless journey in becoming a full-stack R developer. What You Will Learn Describe and visualize the behavior of data and relationships between data Gain a thorough understanding of statistical reasoning and sampling Handle missing data gracefully using multiple imputation Create diverse types of bar charts using the default R functions Familiarize yourself with algorithms written in R for spatial data mining, text mining, and so on Understand relationships between market factors and their impact on your portfolio Harness the power of R to build machine learning algorithms with real-world data science applications Learn specialized machine learning techniques for text mining, big data, and more In Detail The R learning path created for you has five connected modules, which are a mini-course in their own right. As you complete each one, you'll have gained key skills and be ready for the material in the next module! This course begins by looking at the Data Analysis with R module. This will help you navigate the R environment. You'll gain a thorough understanding of statistical reasoning and sampling. Finally, you'll be able to put best practices into effect to make your job easier and facilitate reproducibility. The second place to explore is R Graphs, which will help you leverage powerful default R graphics and utilize advanced graphics systems such as lattice and ggplot2, the grammar of graphics. You'll learn how to produce, customize, and publish advanced visualizations using this popular and powerful framework. With the third module, Learning Data Mining with R, you will learn how to manipulate data with R using code snippets and be introduced to mining frequent patterns, association, and correlations while working with R programs. The Mastering R for Quantitative Finance module pragmatically introduces both the quantitative finance concepts and their modeling in R, enabling you to build a tailor-made trading system on your own. By the end of the module, you will be well-versed with various financial techniques using R and will be able to place good bets while making financial decisions. Finally, we'll look at the Machine Learning with R module. With this module, you'll discover all the analytical tools you need to gain insights from complex data and learn how to choose the correct algorithm for your specific needs. You'll also learn to apply machine learning methods to deal with common tasks, including classification, prediction, forecasting, and so on. Style and approach Learn data analysis, data visualization techniques, data mining, and machine learning all using R and also learn to build models in quantitative finance using this powerful language.

MASTERING DATA ANALYSIS WITH R

Packt Publishing Ltd Gain sharp insights into your data and solve real-world data science problems with R—from data munging to modeling and visualization About This Book Handle your data with precision and care for optimal business intelligence Restructure and transform your data to inform decision-making Packed with practical advice and tips to help you get to grips with data mining Who This Book Is For If you are a data scientist or R developer who wants to explore and optimize your use of R's advanced features and tools, this is the book for you. A basic knowledge of R is required, along with an understanding of database logic. What You Will Learn Connect to and load data from R's range of powerful databases Successfully fetch and parse structured and unstructured data Transform and restructure your data with efficient R packages Define and build complex statistical models with glm Develop and train machine learning algorithms Visualize social networks and graph data Deploy supervised and unsupervised classification algorithms Discover how to visualize spatial data with R In Detail R is an essential language for sharp and successful data analysis. Its numerous features and ease of use make it a powerful way of mining, managing, and interpreting large sets of data. In a world where understanding big data has become key, by mastering R you will be able to deal with your data effectively and efficiently. This book will give you the guidance you need to build and develop your knowledge and expertise. Bridging the gap between theory and practice, this book will help you to understand and use data for a competitive advantage. Beginning with taking you through essential data mining and management tasks such as munging, fetching, cleaning, and restructuring, the book then explores different model designs and the core components of effective analysis. You will then discover how to optimize your use of machine learning algorithms for classification and recommendation systems beside the traditional and more recent statistical methods. Style and approach Covering the essential tasks and skills within data science, Mastering Data Analysis provides you with solutions to the challenges of data science. Each section gives you a theoretical overview before demonstrating how to put the theory to work with real-world use cases and hands-on examples.

LEARN BY EXAMPLES: A QUICK GUIDE TO DATA MINING WITH RAPIDMINER AND WEKA

SVBook Pte. Ltd. This book aim to equip the reader with RaidMiner and Weka and Data Mining basics. There will be many examples and explanations that are straight to the point. You will be walked through data mining process from data preparation to data analysis (descriptive statistics) and data visualization to prediction modeling (machine learning) using Weka and RapidMiner. Content Covered: - Introduction (What is data science, what is data mining, CRISP DM Model, what is text mining, three types of analytics, big data) - Getting Started (INstall Weka and RapidMiner) - Prediction and Classification (Prediction and Classification) - Machine Learning Basics (Kmeans Clustering, Decision Tree, Naive Bayes, KNN, Neural Network) - Data Mining with Weka (Data Understanding using Weka, Data Preparation using Weka, Model Building and Evaluation using Weka) - Data Mining with RapidMiner (Data Understanding using RapidMiner, Data Preparation using RapidMiner, Model Building and Evaluation using RapidMiner) - Conclusion We will be using opensource tools, hence, you don't have to worry about buying any softwares. The book is designed for non-programmers only. It will gives you a head start into Weka and RapidMiner, with a touch on data mining. This book has been taught at Udemy and EMHAcademy.com. Use the following Coupon to get the Udemy Course at \$11.99: <https://www.udemy.com/data-mining-with-rapidminer/?couponCode=EBOOKSPECIAL> <https://www.udemy.com/learn-machine-learning-with-weka/?couponCode=EBOOKSPECIAL>

APPLIED ECONOMETRICS WITH R

Springer Science & Business Media R is a language and environment for data analysis and graphics. It may be considered an implementation of S, an award-winning language initially - veloped at Bell Laboratories since the late 1970s. The R project was initiated by Robert Gentleman and Ross Ihaka at the University of Auckland, New Zealand, in the early 1990s, and has been developed by an international team since mid-1997. Historically, econometricians have favored other computing environments, some of which have fallen by the wayside, and also a variety of packages with canned routines. We believe that R has great potential in econometrics, both for research and for teaching. There are at least three reasons for this: (1) R is mostly platform independent and runs on Microsoft Windows, the Mac family of operating systems, and various ?avors of Unix/Linux, and also on some more exotic platforms. (2) R is free software that can be downloaded and installed at no cost from a family of mirror sites around the globe, the Comprehensive R Archive Network (CRAN); hence students can easily install it on their own machines. (3) R is open-source software, so that the full source code is available and can be inspected to understand what it really does, learn from it, and modify and extend it. We also like to think that platform independence and the open-source philosophy make R an ideal environment for reproducible econometric research.

EXPLORATORY DATA ANALYSIS USING R

CRC Press Exploratory Data Analysis Using R provides a classroom-tested introduction to exploratory data analysis (EDA) and introduces the range of "interesting" - good, bad, and ugly - features that can be found in data, and why it is important to find them. It also introduces the mechanics of using R to explore and explain data. The book begins with a detailed overview of data, exploratory analysis, and R, as well as graphics in R. It then explores working with external data, linear regression models, and crafting data stories. The second part of the book focuses on developing R programs, including good programming practices and examples, working with text data, and general predictive models. The book ends with a chapter on "keeping it all together" that includes managing the R installation, managing files, documenting, and an introduction to reproducible computing. The book is designed for both advanced undergraduate, entry-level graduate students, and working professionals with little to no prior exposure to data analysis, modeling, statistics, or programming. it keeps the treatment relatively non-mathematical, even though data analysis is an inherently mathematical subject. Exercises are included at the end of most chapters, and an instructor's solution manual is available. About the Author: Ronald K. Pearson holds the position of Senior Data Scientist with GeoVera, a property insurance company in Fairfield, California, and he has previously held similar positions in a variety of application areas, including software development, drug safety data analysis, and the analysis of industrial process data. He holds a PhD in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology and has published conference and journal papers on topics ranging from nonlinear dynamic model structure selection to the problems of disguised missing data in predictive modeling. Dr. Pearson has authored or co-authored books including Exploring Data in Engineering, the Sciences, and Medicine (Oxford University Press, 2011) and Nonlinear Digital Filtering with Python.

He is also the developer of the DataCamp course on base R graphics and is an author of the datarobot and GoodmanKruskal R packages available from CRAN (the Comprehensive R Archive Network).

ADVANCED STATISTICAL METHODS IN DATA SCIENCE

Springer This book gathers invited presentations from the 2nd Symposium of the ICSA- CANADA Chapter held at the University of Calgary from August 4-6, 2015. The aim of this Symposium was to promote advanced statistical methods in big-data sciences and to allow researchers to exchange ideas on statistics and data science and to embrace the challenges and opportunities of statistics and data science in the modern world. It addresses diverse themes in advanced statistical analysis in big-data sciences, including methods for administrative data analysis, survival data analysis, missing data analysis, high-dimensional and genetic data analysis, longitudinal and functional data analysis, the design and analysis of studies with response-dependent and multi-phase designs, time series and robust statistics, statistical inference based on likelihood, empirical likelihood and estimating functions. The editorial group selected 14 high-quality presentations from this successful symposium and invited the presenters to prepare a full chapter for this book in order to disseminate the findings and promote further research collaborations in this area. This timely book offers new methods that impact advanced statistical model development in big-data sciences.

MATHEMATICS FOR MACHINE LEARNING

Cambridge University Press The fundamental mathematical tools needed to understand machine learning include linear algebra, analytic geometry, matrix decompositions, vector calculus, optimization, probability and statistics. These topics are traditionally taught in disparate courses, making it hard for data science or computer science students, or professionals, to efficiently learn the mathematics. This self-contained textbook bridges the gap between mathematical and machine learning texts, introducing the mathematical concepts with a minimum of prerequisites. It uses these concepts to derive four central machine learning methods: linear regression, principal component analysis, Gaussian mixture models and support vector machines. For students and others with a mathematical background, these derivations provide a starting point to machine learning texts. For those learning the mathematics for the first time, the methods help build intuition and practical experience with applying mathematical concepts. Every chapter includes worked examples and exercises to test understanding. Programming tutorials are offered on the book's web site.

DATA SCIENCE JOBS

CAREER GUIDE FOR STUDENTS & PROFESSIONALS

JourneyofAnalytics Want a high-paying \$\$\$ career in the exciting field of DataScience? This is the ONLY book that will help you land a lucrative Analytics job in 90 days or less! This book is the perfect guide for you, if you fall into any of these categories: * You recently completed a masters degree (or online course or bootcamp) and want to get hired quickly as a Data Scientist, Data Analyst, Data Engineer, Machine learning engineer or BI developer. * Looking to start a career in data science, but unsure where to start. * You are an experienced tech professional, but looking to pivot into analytics to boost your salary potential. * Tired of applying to dozens of jobs without getting a positive response and/or final job offer . * F1 visa, STEM OPT/ CPT students will also find this book helpful to land a job in this lucrative field. The book will teach you proven successful strategies on: * Winning Profiles Turbocharge your resume and LinkedIn profile and start receiving interview calls from hiring managers. Let JOBS CHASE YOU, instead of the other way around! * LinkedIn - A dedicated chapter on LinkedIn that teaches you some creative (and SECRET) ways to leverage the site and identify high-paying jobs with low competition. * Niche sites - A full list of niche job boards that other candidates have overlooked. These sites have high-\$ jobs but lesser competition than the popular job search sites. Upwork - Contrary to popular opinion, Upwork can help you make \$\$\$ in data science jobs. Learn proven techniques to help you bag contracts and start earning, as quickly as next week. * 100+ interview questions asked in real-life data scientist interviews. * Other learner resources and much more... Author is a practicing analytics professional who has worked in Fortune500 Firms like NASDAQ , BlackRock, etc. Unlike most job search books that are written by recruiters or professors, this book is written by a senior professional, who rose quickly from analyst to managerial roles. She has attended interviews of her own, and knows clearly the frustrations (and at times, hopelessness) of the job search process. The systems in this book have successfully helped dozens of job seekers and will work effectively for you too! Read on to launch your dream career! Note, this book is deliberately kept short and precise, so you can quickly read through and start applying these principles, instead of sifting through 500 pages of fluff. This book includes: Data Science interview questions and answers; Help preparing for Machine Learning Interviews; Top 25 Interview Questions for Data Analyst/Scientist roles; An in-depth overview of Data Science Interview Process; How to ace your interview even if you are an Entry level Data Analyst / Data Scientist; Data Science Interview questions for freshers; How and Where to look for jobs; and much more!

R FOR MARKETING RESEARCH AND ANALYTICS

Springer This book is a complete introduction to the power of R for marketing research practitioners. The text describes statistical models from a conceptual point of view with a minimal amount of mathematics, presuming only an introductory knowledge of statistics. Hands-on chapters accelerate the learning curve by asking readers to interact with R from the beginning. Core topics include the R language, basic statistics, linear modeling, and data visualization, which is presented throughout as an integral part of analysis. Later chapters cover more advanced topics yet are intended to be approachable for all analysts. These sections examine logistic regression, customer segmentation, hierarchical linear modeling, market basket analysis, structural equation modeling, and conjoint analysis in R. The text uniquely presents Bayesian models with a minimally complex approach, demonstrating and explaining Bayesian methods alongside traditional analyses for analysis of variance, linear models, and metric and choice-based conjoint analysis. With its emphasis on data visualization, model assessment, and development of statistical intuition, this book provides guidance for any analyst looking to develop or improve skills in R for marketing applications.

TEACH YOUR KIDS TO CODE

A PARENT-FRIENDLY GUIDE TO PYTHON PROGRAMMING

No Starch Press Teach Your Kids to Code is a parent's and teacher's guide to teaching kids basic programming and problem solving using Python, the powerful language used in college courses and by tech companies like Google and IBM. Step-by-step explanations will have kids learning computational thinking right away, while visual and game-oriented examples hold their attention. Friendly introductions to fundamental programming concepts such as variables, loops, and functions will help even the youngest programmers build the skills they need to make their own cool games and applications. Whether you've been coding for years or have never programmed anything at all, Teach Your Kids to Code will help you show your young programmer how to: -Explore geometry by drawing colorful shapes with Turtle graphics -Write programs to encode and decode messages, play Rock-Paper-Scissors, and calculate how tall someone is in Ping-Pong balls -Create fun, playable games like War, Yahtzee, and Pong -Add interactivity, animation, and sound to their apps Teach Your Kids to Code is the perfect companion to any introductory programming class or after-school meet-up, or simply your educational efforts at home. Spend some fun, productive afternoons at the computer with your kids—you can all learn something!

THE ANALYTICS EDGE

"Provides a unified, insightful, modern, and entertaining treatment of analytics. The book covers the science of using data to build models, improve decisions, and ultimately add value to institutions and individuals"--Back cover.

FRANK KANE'S TAMING BIG DATA WITH APACHE SPARK AND PYTHON

Packt Publishing Ltd Frank Kane's hands-on Spark training course, based on his bestselling Taming Big Data with Apache Spark and Python video, now available in a book. Understand and analyze large data sets using Spark on a single system or on a cluster. About This Book Understand how Spark can be distributed across computing clusters Develop and run Spark jobs efficiently using Python A hands-on tutorial by Frank Kane with over 15 real-world examples teaching you Big Data processing with Spark Who This Book Is For If you are a data scientist or data analyst who wants to learn Big Data processing using Apache Spark and Python, this book is for you. If you have some programming experience in Python, and want to learn how to process large amounts of data using Apache Spark, Frank Kane's Taming Big Data with Apache Spark and Python will also help you. What You Will Learn Find out how you can identify Big Data problems as Spark problems Install and run Apache Spark on your computer or on a cluster Analyze large data sets across many CPUs using Spark's Resilient Distributed Datasets Implement machine learning on Spark using the MLlib library Process continuous streams of data in real time using the Spark streaming module Perform complex network analysis using Spark's GraphX library Use Amazon's Elastic MapReduce service to run your Spark jobs on a cluster In Detail Frank Kane's Taming Big Data with Apache Spark and Python is your companion to learning Apache Spark in a hands-on manner. Frank will start you off by teaching you how to set up

Spark on a single system or on a cluster, and you'll soon move on to analyzing large data sets using Spark RDD, and developing and running effective Spark jobs quickly using Python. Apache Spark has emerged as the next big thing in the Big Data domain - quickly rising from an ascending technology to an established superstar in just a matter of years. Spark allows you to quickly extract actionable insights from large amounts of data, on a real-time basis, making it an essential tool in many modern businesses. Frank has packed this book with over 15 interactive, fun-filled examples relevant to the real world, and he will empower you to understand the Spark ecosystem and implement production-grade real-time Spark projects with ease. Style and approach Frank Kane's Taming Big Data with Apache Spark and Python is a hands-on tutorial with over 15 real-world examples carefully explained by Frank in a step-by-step manner. The examples vary in complexity, and you can move through them at your own pace.

DOING DATA SCIENCE

STRAIGHT TALK FROM THE FRONTLINE

"O'Reilly Media, Inc." Now that people are aware that data can make the difference in an election or a business model, data science as an occupation is gaining ground. But how can you get started working in a wide-ranging, interdisciplinary field that's so clouded in hype? This insightful book, based on Columbia University's Introduction to Data Science class, tells you what you need to know. In many of these chapter-long lectures, data scientists from companies such as Google, Microsoft, and eBay share new algorithms, methods, and models by presenting case studies and the code they use. If you're familiar with linear algebra, probability, and statistics, and have programming experience, this book is an ideal introduction to data science. Topics include: Statistical inference, exploratory data analysis, and the data science process Algorithms Spam filters, Naive Bayes, and data wrangling Logistic regression Financial modeling Recommendation engines and causality Data visualization Social networks and data journalism Data engineering, MapReduce, Pregel, and Hadoop Doing Data Science is collaboration between course instructor Rachel Schutt, Senior VP of Data Science at News Corp, and data science consultant Cathy O'Neil, a senior data scientist at Johnson Research Labs, who attended and blogged about the course.

INTERACTIVE DATA VISUALIZATION FOR THE WEB

"O'Reilly Media, Inc." Author Scott Murray teaches you the fundamental concepts and methods of D3, a JavaScript library that lets you express data visually in a web browser.

DEEP LEARNING ILLUSTRATED

A VISUAL, INTERACTIVE GUIDE TO ARTIFICIAL INTELLIGENCE

Addison-Wesley Professional "The authors' clear visual style provides a comprehensive look at what's currently possible with artificial neural networks as well as a glimpse of the magic that's to come." -Tim Urban, author of Wait But Why Fully Practical, Insightful Guide to Modern Deep Learning Deep learning is transforming software, facilitating powerful new artificial intelligence capabilities, and driving unprecedented algorithm performance. Deep Learning Illustrated is uniquely intuitive and offers a complete introduction to the discipline's techniques. Packed with full-color figures and easy-to-follow code, it sweeps away the complexity of building deep learning models, making the subject approachable and fun to learn. World-class instructor and practitioner Jon Krohn-with visionary content from Grant Beyleveld and beautiful illustrations by Aglaé Bassens-presents straightforward analogies to explain what deep learning is, why it has become so popular, and how it relates to other machine learning approaches. Krohn has created a practical reference and tutorial for developers, data scientists, researchers, analysts, and students who want to start applying it. He illuminates theory with hands-on Python code in accompanying Jupyter notebooks. To help you progress quickly, he focuses on the versatile deep learning library Keras to nimbly construct efficient TensorFlow models; PyTorch, the leading alternative library, is also covered. You'll gain a pragmatic understanding of all major deep learning approaches and their uses in applications ranging from machine vision and natural language processing to image generation and game-playing algorithms. Discover what makes deep learning systems unique, and the implications for practitioners Explore new tools that make deep learning models easier to build, use, and improve Master essential theory: artificial neurons, training, optimization, convolutional nets, recurrent nets, generative adversarial networks (GANs), deep reinforcement learning, and more Walk through building interactive deep learning applications, and move forward with your own artificial intelligence projects Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

R FOR SAS AND SPSS USERS

Springer Science & Business Media R is a powerful and free software system for data analysis and graphics, with over 5,000 add-on packages available. This book introduces R using SAS and SPSS terms with which you are already familiar. It demonstrates which of the add-on packages are most like SAS and SPSS and compares them to R's built-in functions. It steps through over 30 programs written in all three packages, comparing and contrasting the packages' differing approaches. The programs and practice datasets are available for download. The glossary defines over 50 R terms using SAS/SPSS jargon and again using R jargon. The table of contents and the index allow you to find equivalent R functions by looking up both SAS statements and SPSS commands. When finished, you will be able to import data, manage and transform it, create publication quality graphics, and perform basic statistical analyses. This new edition has updated programming, an expanded index, and even more statistical methods covered in over 25 new sections.

PYTHON FOR EVERYBODY

EXPLORING DATA IN PYTHON 3

Python for Everybody is designed to introduce students to programming and software development through the lens of exploring data. You can think of the Python programming language as your tool to solve data problems that are beyond the capability of a spreadsheet. Python is an easy to use and easy to learn programming language that is freely available on Macintosh, Windows, or Linux computers. So once you learn Python you can use it for the rest of your career without needing to purchase any software. This book uses the Python 3 language. The earlier Python 2 version of this book is titled "Python for Informatics: Exploring Information". There are free downloadable electronic copies of this book in various formats and supporting materials for the book at www.pythonlearn.com. The course materials are available to you under a Creative Commons License so you can adapt them to teach your own Python course.

DATA ANALYSIS FOR THE LIFE SCIENCES WITH R

CRC Press This book covers several of the statistical concepts and data analytic skills needed to succeed in data-driven life science research. The authors proceed from relatively basic concepts related to computed p-values to advanced topics related to analyzing highthroughput data. They include the R code that performs this analysis and connect the lines of code to the statistical and mathematical concepts explained.

CONFIDENT DATA SKILLS

MASTER THE FUNDAMENTALS OF WORKING WITH DATA AND SUPERCHARGE YOUR CAREER

Kogan Page Publishers Data science is the most exciting skill you can master. Data has dramatically changed how our world works. From entertainment to politics, from technology to advertising and from science to the business world, data is integral and its only limit is our imagination. If you want to have a vibrant and valuable professional life, being skilled with data is the key to a cutting-edge career. Learning how to work with data may seem intimidating or difficult but with Confident Data Skills you will be able to master the fundamentals and supercharge your professional abilities. This essential book covers data mining, preparing data, analysing data, communicating data, financial modelling, visualizing insights and presenting data through film making and dynamic simulations. In-depth international case studies from a wide range of organizations, including Netflix, LinkedIn, Goodreads, Deep Blue, Alpha Go and Mike's Hard Lemonade Co. show successful data techniques in practice and inspire you to turn knowledge into innovation. Confident Data Skills also provides insightful guidance on how you can use data skills to enhance your employability and improve how your industry or company works through your data skills. Expert author and instructor, Kirill Eremenko, is committed to making the complex simple and inspiring you to have the confidence to develop an understanding, adeptness and love of data.

DATA SCIENCE FROM SCRATCH

FIRST PRINCIPLES WITH PYTHON

"O'Reilly Media, Inc." Data science libraries, frameworks, modules, and toolkits are great for doing data science, but they're also a good way to dive into the discipline without actually understanding data science. In this book, you'll learn how many of the most fundamental data science tools and algorithms work by implementing them from scratch. If you have an aptitude for mathematics and some programming skills, author Joel Grus will help you get comfortable with the math and statistics at the core of data science, and with hacking skills you need to get started as a data scientist. Today's messy glut of data holds answers to questions no one's even thought to ask. This book provides you with the know-how to dig those answers out. Get a crash course in Python Learn the basics of linear algebra, statistics, and probability—and understand how and when they're used in data science Collect, explore, clean, munge, and manipulate data Dive into the fundamentals of machine learning Implement models such as k-nearest Neighbors, Naive Bayes, linear and logistic regression, decision trees, neural networks, and clustering Explore recommender systems, natural language processing, network analysis, MapReduce, and databases

INTRODUCTION TO PROBABILITY

CRC Press Developed from celebrated Harvard statistics lectures, Introduction to Probability provides essential language and tools for understanding statistics, randomness, and uncertainty. The book explores a wide variety of applications and examples, ranging from coincidences and paradoxes to Google PageRank and Markov chain Monte Carlo (MCMC). Additional

INTRODUCTION TO DATA SCIENCE

DATA ANALYSIS AND PREDICTION ALGORITHMS WITH R

CRC Press Introduction to Data Science: Data Analysis and Prediction Algorithms with R introduces concepts and skills that can help you tackle real-world data analysis challenges. It covers concepts from probability, statistical inference, linear regression, and machine learning. It also helps you develop skills such as R programming, data wrangling, data visualization, predictive algorithm building, file organization with UNIX/Linux shell, version control with Git and GitHub, and reproducible document preparation. This book is a textbook for a first course in data science. No previous knowledge of R is necessary, although some experience with programming may be helpful. The book is divided into six parts: R, data visualization, statistics with R, data wrangling, machine learning, and productivity tools. Each part has several chapters meant to be presented as one lecture. The author uses motivating case studies that realistically mimic a data scientist's experience. He starts by asking specific questions and answers these through data analysis so concepts are learned as a means to answering the questions. Examples of the case studies included are: US murder rates by state, self-reported student heights, trends in world health and economics, the impact of vaccines on infectious disease rates, the financial crisis of 2007-2008, election forecasting, building a baseball team, image processing of hand-written digits, and movie recommendation systems. The statistical concepts used to answer the case study questions are only briefly introduced, so complementing with a probability and statistics textbook is highly recommended for in-depth understanding of these concepts. If you read and understand the chapters and complete the exercises, you will be prepared to learn the more advanced concepts and skills needed to become an expert.

ARTIFICIAL INTELLIGENCE WITH PYTHON

Packt Publishing Ltd 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.

THE BIG BOOK OF SMALL PYTHON PROJECTS

81 EASY PRACTICE PROGRAMS

No Starch Press Best-selling author Al Sweigart shows you how to easily build over 80 fun programs with minimal code and maximum creativity. If you've mastered basic Python syntax and you're ready to start writing programs, you'll find The Big Book of Small Python Projects both enlightening and fun. This collection of 81 Python projects will have you making digital art, games, animations, counting programs, and more right away. Once you see how the code works, you'll practice re-creating the programs and experiment by adding your own custom touches. These simple, text-based programs are 256 lines of code or less. And whether it's a vintage screensaver, a snail-racing game, a clickbait headline generator, or animated strands of DNA, each project is designed to be self-contained so you can easily share it online. You'll create: • Hangman, Blackjack, and other games to play against your friends or the computer • Simulations of a forest fire, a million dice rolls, and a Japanese abacus • Animations like a virtual fish tank, a rotating cube, and a bouncing DVD logo screensaver • A first-person 3D maze game • Encryption programs that use ciphers like ROT13 and Vigenère to conceal text If you're tired of standard step-by-step tutorials, you'll love the learn-by-doing approach of The Big Book of Small Python Projects. It's proof that good things come in small programs!

BAYESIAN METHODS FOR HACKERS

PROBABILISTIC PROGRAMMING AND BAYESIAN INFERENCE

Addison-Wesley Professional Master Bayesian Inference through Practical Examples and Computation-Without Advanced Mathematical Analysis Bayesian methods of inference are deeply natural and extremely powerful. However, most discussions of Bayesian inference rely on intensely complex mathematical analyses and artificial examples, making it inaccessible to anyone without a strong mathematical background. Now, though, Cameron Davidson-Pilon introduces Bayesian inference from a computational perspective, bridging theory to practice-freeing you to get results using computing power. Bayesian Methods for Hackers illuminates Bayesian inference through probabilistic programming with the powerful PyMC language and the closely related Python tools NumPy, SciPy, and Matplotlib. Using this approach, you can reach effective solutions in small increments, without extensive mathematical intervention. Davidson-Pilon begins by introducing the concepts underlying Bayesian inference, comparing it with other techniques and guiding you through building and training your first Bayesian model. Next, he introduces PyMC through a series of detailed examples and intuitive explanations that have been refined after extensive user feedback. You'll learn how to use the Markov Chain Monte Carlo algorithm, choose appropriate sample sizes and priors, work with loss functions, and apply Bayesian inference in domains ranging from finance to marketing. Once you've mastered these techniques, you'll constantly turn to this guide for the working PyMC code you need to jumpstart

future projects. Coverage includes • Learning the Bayesian “state of mind” and its practical implications • Understanding how computers perform Bayesian inference • Using the PyMC Python library to program Bayesian analyses • Building and debugging models with PyMC • Testing your model’s “goodness of fit” • Opening the “black box” of the Markov Chain Monte Carlo algorithm to see how and why it works • Leveraging the power of the “Law of Large Numbers” • Mastering key concepts, such as clustering, convergence, autocorrelation, and thinning • Using loss functions to measure an estimate’s weaknesses based on your goals and desired outcomes • Selecting appropriate priors and understanding how their influence changes with dataset size • Overcoming the “exploration versus exploitation” dilemma: deciding when “pretty good” is good enough • Using Bayesian inference to improve A/B testing • Solving data science problems when only small amounts of data are available Cameron Davidson-Pilon has worked in many areas of applied mathematics, from the evolutionary dynamics of genes and diseases to stochastic modeling of financial prices. His contributions to the open source community include lifelines, an implementation of survival analysis in Python. Educated at the University of Waterloo and at the Independent University of Moscow, he currently works with the online commerce leader Shopify.

ANALYZING BASEBALL DATA WITH R, SECOND EDITION

CRC Press Analyzing Baseball Data with R Second Edition introduces R to sabermetricians, baseball enthusiasts, and students interested in exploring the richness of baseball data. It equips you with the necessary skills and software tools to perform all the analysis steps, from importing the data to transforming them into an appropriate format to visualizing the data via graphs to performing a statistical analysis. The authors first present an overview of publicly available baseball datasets and a gentle introduction to the type of data structures and exploratory and data management capabilities of R. They also cover the ggplot2 graphics functions and employ a tidyverse-friendly workflow throughout. Much of the book illustrates the use of R through popular sabermetrics topics, including the Pythagorean formula, runs expectancy, catcher framing, career trajectories, simulation of games and seasons, patterns of streaky behavior of players, and launch angles and exit velocities. All the datasets and R code used in the text are available online. New to the second edition are a systematic adoption of the tidyverse and incorporation of Statcast player tracking data (made available by Baseball Savant). All code from the first edition has been revised according to the principles of the tidyverse. Tidyverse packages, including dplyr, ggplot2, tidyr, purrr, and broom are emphasized throughout the book. Two entirely new chapters are made possible by the availability of Statcast data: one explores the notion of catcher framing ability, and the other uses launch angle and exit velocity to estimate the probability of a home run. Through the book’s various examples, you will learn about modern sabermetrics and how to conduct your own baseball analyses. Max Marchi is a Baseball Analytics Analyst for the Cleveland Indians. He was a regular contributor to The Hardball Times and Baseball Prospectus websites and previously consulted for other MLB clubs. Jim Albert is a Distinguished University Professor of statistics at Bowling Green State University. He has authored or coauthored several books including Curve Ball and Visualizing Baseball and was the editor of the Journal of Quantitative Analysis of Sports. Ben Baumer is an assistant professor of statistical & data sciences at Smith College. Previously a statistical analyst for the New York Mets, he is a co-author of The Sabermetric Revolution and Modern Data Science with R.

THE BOOK OF R

A FIRST COURSE IN PROGRAMMING AND STATISTICS

No Starch Press 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 ggplot2 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.

MASTERING MACHINE LEARNING WITH R

Packt Publishing Ltd Master machine learning techniques with R to deliver insights for complex projects About This Book Get to grips with the application of Machine Learning methods using an extensive set of R packages Understand the benefits and potential pitfalls of using machine learning methods Implement the numerous powerful features offered by R with this comprehensive guide to building an independent R-based ML system Who This Book Is For If you want to learn how to use R’s machine learning capabilities to solve complex business problems, then this book is for you. Some experience with R and a working knowledge of basic statistical or machine learning will prove helpful. What You Will Learn Gain deep insights to learn the applications of machine learning tools to the industry Manipulate data in R efficiently to prepare it for analysis Master the skill of recognizing techniques for effective visualization of data Understand why and how to create test and training data sets for analysis Familiarize yourself with fundamental learning methods such as linear and logistic regression Comprehend advanced learning methods such as support vector machines Realize why and how to apply unsupervised learning methods In Detail Machine learning is a field of Artificial Intelligence to build systems that learn from data. Given the growing prominence of R—a cross-platform, zero-cost statistical programming environment—there has never been a better time to start applying machine learning to your data. The book starts with introduction to Cross-Industry Standard Process for Data Mining. It takes you through Multivariate Regression in detail. Moving on, you will also address Classification and Regression trees. You will learn a couple of “Unsupervised techniques”. Finally, the book will walk you through text analysis and time series. The book will deliver practical and real-world solutions to problems and variety of tasks such as complex recommendation systems. By the end of this book, you will gain expertise in performing R machine learning and will be able to build complex ML projects using R and its packages. Style and approach This is a book explains complicated concepts with easy to follow theory and real-world, practical applications. It demonstrates the power of R and machine learning extensively while highlighting the constraints.

THE ELEMENTS OF COMPUTING SYSTEMS

BUILDING A MODERN COMPUTER FROM FIRST PRINCIPLES

Mit Press This title gives students an integrated and rigorous picture of applied computer science, as it comes to play in the construction of a simple yet powerful computer system.