

## ***Learn Ggplot2 Using Shiny App***

***Learn ggplot2 Using Shiny App Learn ggplot2 Using Shiny App Mastering Shiny Interactive Web-Based Data Visualization with R, plotly, and shiny Learning Shiny Mastering Shiny Web Application Development with R Using Shiny Information in Contemporary Society Beginning Data Science with R Modern Statistics for Modern Biology Engineering Production-Grade Shiny Apps R for Everyone Geocomputation with R R Programming By Example R for Data Science R Visualizations Applied Big Data Analytics and Its Role in COVID-19 Research Hands-On Dashboard Development with Shiny Modern Data Science with R Hands-On Data Science with R Using R and RStudio for Data Management, Statistical Analysis, and Graphics R in 24 Hours, Sams Teach Yourself R Markdown Introduction to R for Business Intelligence Outstanding User Interfaces with Shiny The Big R-Book R Programming Fundamentals R Data Visualization Recipes Programming Skills for Data Science Python and R for the Modern Data Scientist Frontier Computing Doing Data Science in R R Graphics Cookbook Advances in the Diagnosis and Control of John's Disease HCI International 2022 Posters R Projects For Dummies Javascript for R Emerging Technologies for Education Web Application Development with R Using Shiny - Third Edition Geospatial Health Data***

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***R for Data Science Aug 14 2021 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***

*Mastering Shiny May 23 2022 Master the Shiny web framework—and take your R skills to a whole new level. By letting you move beyond static reports, Shiny helps you create fully interactive web apps for data analyses. Users will be able to jump between datasets, explore different subsets or facets of the data, run models with parameter values of their choosing, customize visualizations, and much more. Hadley Wickham from RStudio shows data scientists, data analysts, statisticians, and scientific researchers with no knowledge of HTML, CSS, or JavaScript how to create rich web apps from R. This in-depth guide provides a learning path that you can follow with confidence, as you go from a Shiny beginner to an expert developer who can write large, complex apps that are maintainable and performant. Get started: Discover how the major pieces of a Shiny app fit together Put Shiny in action: Explore Shiny functionality with a focus on code samples, example apps, and useful techniques Master reactivity: Go deep into the theory and practice of reactive programming and examine reactive graph components Apply best practices: Examine useful techniques for making your Shiny apps work well in production*

*Doing Data Science in R Feb 26 2020 This approachable introduction to doing data science in R provides step-by-step advice on using the tools and statistical methods to carry out data analysis. Introducing the fundamentals of data science and R before moving into more advanced topics like Multilevel Models and Probabilistic Modelling with Stan, it builds knowledge and skills gradually. This book: Focuses on providing practical guidance for all aspects, helping readers get to grips with the tools, software, and statistical methods needed to provide the right type and level of analysis their data requires Explores the foundations of data science and breaks down the processes involved, focusing on the link between data science and practical social science skills Introduces R at the outset and includes extensive worked examples and R code every step of the way, ensuring students see the value of R and its connection to methods while providing hands-on practice in the software Provides examples and datasets from different disciplines and locations demonstrate the widespread relevance, possible applications, and impact of data science across the social sciences.*

*Geospatial Health Data Jun 19 2019 Geospatial health data are essential to inform public health and policy. These data can be used to quantify disease burden, understand geographic and temporal patterns, identify risk factors, and measure inequalities. Geospatial Health Data: Modeling and Visualization with R-INLA and Shiny describes spatial and spatio-temporal statistical methods and visualization techniques to analyze georeferenced health data in R. The book covers the following topics: Manipulate and transform point, areal, and raster data, Bayesian hierarchical models for disease mapping using areal and geostatistical data, Fit and interpret spatial and spatio-temporal models with the Integrated Nested Laplace Approximations (INLA) and the Stochastic Partial Differential Equation (SPDE) approaches, Create interactive and static visualizations such as disease maps and time plots, Reproducible R Markdown reports, interactive dashboards, and Shiny web applications that facilitate the communication of insights to collaborators and policy makers. The book features fully reproducible examples of several disease and environmental applications using real-world data such as malaria in The Gambia, cancer in Scotland and USA, and air pollution in Spain. Examples in the book focus on health applications, but the approaches covered are also applicable to other fields that use georeferenced data including epidemiology, ecology, demography or criminology. The book provides clear descriptions of the R code for data importing, manipulation, modeling and visualization, as well as the interpretation of the results. This ensures contents are fully reproducible and accessible for students, researchers and practitioners.*

*HCI International 2022 Posters Nov 24 2019 The four-volume set CCIS 1580, CCIS 1581, CCIS 1582, and CCIS 1583 contains the extended abstracts of the posters presented during the 24th International Conference on Human-Computer Interaction, HCII 2022, which was held virtually in June - July*

**2022. The total of 1276 papers and 275 posters included in the 40 HCII 2021 proceedings volumes was carefully reviewed and selected from 5583 submissions. The posters presented in these four volumes are organized in topical sections as follows: Part I: user experience design and evaluation; visual design and visualization; data, information and knowledge; interacting with AI; universal access, accessibility and design for aging. Part II: multimodal and natural interaction; perception, cognition, emotion and psychophysiological monitoring; human motion modelling and monitoring; IoT and intelligent living environments. Part III: learning technologies; HCI, cultural heritage and art; eGovernment and eBusiness; digital commerce and the customer experience; social media and the metaverse. Part IV: virtual and augmented reality; autonomous vehicles and urban mobility; product and robot design; HCI and wellbeing; HCI and cybersecurity.**

***R in 24 Hours, Sams Teach Yourself Jan 07 2021* In just 24 lessons of one hour or less, Sams Teach Yourself R in 24 Hours helps you learn all the R skills you need to solve a wide spectrum of real-world data analysis problems. You'll master the entire data analysis workflow, learning to build code that's efficient, reproducible, and suitable for sharing with others. This book's straightforward, step-by-step approach teaches you how to import, manipulate, summarize, model, and plot data with R; formalize your analytical code; and build powerful R packages using current best practices. Practical, hands-on examples show you how to apply what you learn. Quizzes and exercises help you test your knowledge and stretch your skills. Learn How To Install, configure, and explore the R environment, including RStudio Use basic R syntax, objects, and packages Create and manage data structures, including vectors, matrices, and arrays Understand lists and data frames Work with dates, times, and factors Use common R functions, and learn to write your own Import and export data and connect to databases and spreadsheets Use the popular tidy, dplyr and data.table packages Write more efficient R code with profiling, vectorization, and initialization Plot data and extend your graphical capabilities with ggplot2 and Lattice graphics Develop common types of models Construct high-quality packages, both simple and complex Write R classes: S3, S4, and Reference Classes Use R to generate dynamic reports Build web applications with Shiny Register your book at [informit.com/register](http://informit.com/register) for convenient access to updates and corrections as they become available. This book's source code can be found at <http://www.mango-solutions.com/wp/teach-yourself-r-in-24-hours-book/>.**

***The Big R-Book Sep 03 2020* Introduces professionals and scientists to statistics and machine learning using the programming language R Written by and for practitioners, this book provides an overall introduction to R, focusing on tools and methods commonly used in data science, and placing emphasis on practice and business use. It covers a wide range of topics in a single volume, including big data, databases, statistical machine learning, data wrangling, data visualization, and the reporting of results. The topics covered are all important for someone with a science/math background that is looking to quickly learn several practical technologies to enter or transition to the growing field of data science. The Big R-Book for Professionals: From Data Science to Learning Machines and Reporting with R includes nine parts, starting with an introduction to the subject and followed by an overview of R and elements of statistics. The third part revolves around data, while the fourth focuses on data wrangling. Part 5 teaches readers about exploring data. In Part 6 we learn to build models, Part 7 introduces the reader to the reality in companies, Part 8 covers reports and interactive applications and finally Part 9 introduces the reader to big data and performance computing. It also includes some helpful appendices. Provides a practical guide for non-experts with a focus on business users Contains a unique combination of topics including an introduction to R, machine learning, mathematical models, data wrangling, and reporting Uses a practical tone and integrates multiple topics in a coherent framework Demystifies the hype around machine learning and AI by enabling readers to understand the provided models and program them in R Shows readers how to visualize**

*results in static and interactive reports Supplementary materials includes PDF slides based on the book's content, as well as all the extracted R-code and is available to everyone on a Wiley Book Companion Site The Big R-Book is an excellent guide for science technology, engineering, or mathematics students who wish to make a successful transition from the academic world to the professional. It will also appeal to all young data scientists, quantitative analysts, and analytics professionals, as well as those who make mathematical models.*

*R Programming By Example Sep 15 2021 This step-by-step guide demonstrates how to build simple-to-advanced applications through examples in R using modern tools. About This Book Get a firm hold on the fundamentals of R through practical hands-on examples Get started with good R programming fundamentals for data science Exploit the different libraries of R to build interesting applications in R Who This Book Is For This book is for aspiring data science professionals or statisticians who would like to learn about the R programming language in a practical manner. Basic programming knowledge is assumed. What You Will Learn Discover techniques to leverage R's features, and work with packages Perform a descriptive analysis and work with statistical models using R Work efficiently with objects without using loops Create diverse visualizations to gain better understanding of the data Understand ways to produce good visualizations and create reports for the results Read and write data from relational databases and REST APIs, both packaged and unpackaged Improve performance by writing better code, delegating that code to a more efficient programming language, or making it parallel In Detail R is a high-level statistical language and is widely used among statisticians and data miners to develop analytical applications. Often, data analysis people with great analytical skills lack solid programming knowledge and are unfamiliar with the correct ways to use R. Based on the version 3.4, this book will help you develop strong fundamentals when working with R by taking you through a series of full representative examples, giving you a holistic view of R. We begin with the basic installation and configuration of the R environment. As you progress through the exercises, you'll become thoroughly acquainted with R's features and its packages. With this book, you will learn about the basic concepts of R programming, work efficiently with graphs, create publication-ready and interactive 3D graphs, and gain a better understanding of the data at hand. The detailed step-by-step instructions will enable you to get a clean set of data, produce good visualizations, and create reports for the results. It also teaches you various methods to perform code profiling and performance enhancement with good programming practices, delegation, and parallelization. By the end of this book, you will know how to efficiently work with data, create quality visualizations and reports, and develop code that is modular, expressive, and maintainable. Style and Approach This is an easy-to-understand guide filled with real-world examples, giving you a holistic view of R and practical, hands-on experience.*

*Web Application Development with R Using Shiny - Third Edition Jul 21 2019 Analyze, communicate, and design your own sophisticated and interactive web applications using the R (v 3.4) Shiny (1.1.0) package Key Features Explore the power of R Shiny to make interactive web applications easily Create engaging user interfaces using elements such as HTML5 shiny tags and Ttassets Build and deploy your interactive Shiny web application using shinyapps.io Book Description Web Application Development with R Using Shiny helps you become familiar with the complete R Shiny package. The book starts with a quick overview of R and its fundamentals, followed by an exploration of the fundamentals of Shiny and some of the things that it can help you do. You'll learn about the wide range of widgets and functions within Shiny and how they fit together to make an attractive and easy to use application. Once you have understood the basics, you'll move on to studying more advanced UI features, including how to style apps in detail using the Bootstrap framework or and Shiny's inbuilt layout functions. You'll learn about enhancing Shiny with JavaScript, ranging from adding simple interactivity with*

*JavaScript right through to using JavaScript to enhance the reactivity between your app and the UI. You'll learn more advanced Shiny features of Shiny, such as uploading and downloading data and reports, as well as how to interact with tables and link reactive outputs. Lastly, you'll learn how to deploy Shiny applications over the internet, as well as and how to handle storage and data persistence within Shiny applications, including the use of relational databases. By the end of this book, you'll be ready to create responsive, interactive web applications using the complete R (v 3.4) Shiny (1.1.0) suite. What you will learn Harness the power of JavaScript to customize your applications Build dashboards with predefined UI and layouts Engage your users and build better analytics using interactive plots Learn advanced code patterns to make your applications easy to write and maintain. Develop a full understanding of Shiny's UI functions to give you the power to build a wide variety of attractive applications. Store data and interact with databases with Shiny. Learn how to share your Shiny applications Understand reactivity at the conceptual level to build more efficient and robust apps Who this book is for Web Application Development with R Using Shiny is for you if you are interested in creating compelling web applications and interactive data visualization over the web using Shiny. Programming experience with R is required.*

*Using R and RStudio for Data Management, Statistical Analysis, and Graphics Feb 08 2021 Improve Your Analytical Skills Incorporating the latest R packages as well as new case studies and applications, Using R and RStudio for Data Management, Statistical Analysis, and Graphics, Second Edition covers the aspects of R most often used by statistical analysts. New users of R will find the book's simple approach easy to understand while more*

*Engineering Production-Grade Shiny Apps Dec 18 2021 From the Reviews "[This book] contains an excellent blend of both Shiny-specific topics ... and practical advice from software development that fits in nicely with Shiny apps. You will find many nuggets of wisdom sprinkled throughout these chapters...." Eric Nantz, Host of the R-Podcast and the Shiny Developer Series (from the Foreword) "[This] book is a gradual and pleasant invitation to the production-ready shiny apps world. It ...exposes a comprehensive and robust workflow powered by the {golem} package. [It] fills the not yet covered gap between shiny app development and deployment in such a thrilling way that it may be read in one sitting.... In the industry world, where processes robustness is a key toward productivity, this book will indubitably have a tremendous impact." David Granjon, Sr. Expert Data Science, Novartis Presented in full color, Engineering Production-Grade Shiny Apps helps people build production-grade shiny applications, by providing advice, tools, and a methodology to work on web applications with R. This book starts with an overview of the challenges which arise from any big web application project: organizing work, thinking about the user interface, the challenges of teamwork and the production environment. Then, it moves to a step-by-step methodology that goes from the idea to the end application. Each part of this process will cover in detail a series of tools and methods to use while building production-ready shiny applications. Finally, the book will end with a series of approaches and advice about optimizations for production. Features Focused on practical matters: This book does not cover Shiny concepts, but practical tools and methodologies to use for production. Based on experience: This book is a formalization of several years of experience building Shiny applications. Original content: This book presents new methodologies and tooling, not just a review of what already exists. Engineering Production-Grade Shiny Apps covers medium to advanced content about Shiny, so it will help people that are already familiar with building apps with Shiny, and who want to go one step further.*

*Programming Skills for Data Science May 31 2020 The Foundational Hands-On Skills You Need to Dive into Data Science "Freeman and Ross have created the definitive resource for new and aspiring data scientists to learn foundational programming skills." –From the foreword by Jared Lander, series*

*editor Using data science techniques, you can transform raw data into actionable insights for domains ranging from urban planning to precision medicine. Programming Skills for Data Science brings together all the foundational skills you need to get started, even if you have no programming or data science experience. Leading instructors Michael Freeman and Joel Ross guide you through installing and configuring the tools you need to solve professional-level data science problems, including the widely used R language and Git version-control system. They explain how to wrangle your data into a form where it can be easily used, analyzed, and visualized so others can see the patterns you've uncovered. Step by step, you'll master powerful R programming techniques and troubleshooting skills for probing data in new ways, and at larger scales. Freeman and Ross teach through practical examples and exercises that can be combined into complete data science projects. Everything's focused on real-world application, so you can quickly start analyzing your own data and getting answers you can act upon. Learn to Install your complete data science environment, including R and RStudio Manage projects efficiently, from version tracking to documentation Host, manage, and collaborate on data science projects with GitHub Master R language fundamentals: syntax, programming concepts, and data structures Load, format, explore, and restructure data for successful analysis Interact with databases and web APIs Master key principles for visualizing data accurately and intuitively Produce engaging, interactive visualizations with ggplot and other R packages Transform analyses into sharable documents and sites with R Markdown Create interactive web data science applications with Shiny Collaborate smoothly as part of a data science team Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.*

*Frontier Computing Mar 29 2020 This book presents the proceedings of the 6th International Conference on Frontier Computing, held in Kuala Lumpur, Malaysia on July 3–6, 2018, and provides comprehensive coverage of the latest advances and trends in information technology, science and engineering. It addresses a number of broad themes, including communication networks, business intelligence and knowledge management, web intelligence, and related fields that inspire the development of information technology. The contributions cover a wide range of topics: database and data mining, networking and communications, web and internet of things, embedded systems, soft computing, social network analysis, security and privacy, optical communication, and ubiquitous/pervasive computing. Many of the papers outline promising future research directions. The book is a valuable resource for students, researchers and professionals, and also offers a useful reference guide for newcomers to the field.*

*Learn ggplot2 Using Shiny App Sep 27 2022 This book and app is for practitioners, professionals, researchers, and students who want to learn how to make a plot within the R environment using ggplot2, step-by-step without coding. In widespread use in the statistical communities, R is a free software language and environment for statistical programming and graphics. Many users find R to have a steep learning curve but to be extremely useful once overcome. ggplot2 is an extremely popular package tailored for producing graphics within R but which requires coding and has a steep learning curve itself, and Shiny is an open source R package that provides a web framework for building web applications using R without requiring HTML, CSS, or JavaScript. This manual—"integrating" R, ggplot2, and Shiny—introduces a new Shiny app, Learn ggplot2, that allows users to make plots easily without coding. With the Learn ggplot2 Shiny app, users can make plots using ggplot2 without having to code each step, reducing typos and error messages and allowing users to become familiar with ggplot2 code. The app makes it easy to apply themes, make multiplots (combining several plots into one plot), and download plots as PNG, PDF, or PowerPoint files with editable vector graphics. Users can also make plots on any computer or smart phone. Learn ggplot2 Using Shiny App allows users to Make publication-ready plots in minutes without coding Download plots with desired width, height, and*

*resolution Plot and download plots in png, pdf, and PowerPoint formats, with or without R code and with editable vector graphics*

*Modern Statistics for Modern Biology Jan 19 2022*

*Beginning Data Science with R Feb 20 2022 “We live in the age of data. In the last few years, the methodology of extracting insights from data or "data science" has emerged as a discipline in its own right. The R programming language has become one-stop solution for all types of data analysis. The growing popularity of R is due its statistical roots and a vast open source package library. The goal of “Beginning Data Science with R” is to introduce the readers to some of the useful data science techniques and their implementation with the R programming language. The book attempts to strike a balance between the how: specific processes and methodologies, and understanding the why: going over the intuition behind how a particular technique works, so that the reader can apply it to the problem at hand. This book will be useful for readers who are not familiar with statistics and the R programming language.*

*Interactive Web-Based Data Visualization with R, plotly, and shiny Jul 25 2022 The richly illustrated Interactive Web-Based Data Visualization with R, plotly, and shiny focuses on the process of programming interactive web graphics for multidimensional data analysis. It is written for the data analyst who wants to leverage the capabilities of interactive web graphics without having to learn web programming. Through many R code examples, you will learn how to tap the extensive functionality of these tools to enhance the presentation and exploration of data. By mastering these concepts and tools, you will impress your colleagues with your ability to quickly generate more informative, engaging, and reproducible interactive graphics using free and open source software that you can share over email, export to pdf, and more. Key Features: Convert static ggplot2 graphics to an interactive web-based form Link, animate, and arrange multiple plots in standalone HTML from R Embed, modify, and respond to plotly graphics in a shiny app Learn best practices for visualizing continuous, discrete, and multivariate data Learn numerous ways to visualize geo-spatial data This book makes heavy use of plotly for graphical rendering, but you will also learn about other R packages that support different phases of a data science workflow, such as tidyr, dplyr, and tidyverse. Along the way, you will gain insight into best practices for visualization of high-dimensional data, statistical graphics, and graphical perception. The printed book is complemented by an interactive website where readers can view movies demonstrating the examples and interact with graphics.*

*R Graphics Cookbook Jan 27 2020 "Practical recipes for visualizing data"--Cover.*

*Hands-On Dashboard Development with Shiny May 11 2021 Progressively explore UI development with Shiny via practical examples Key Features Write a Shiny interface in pure HTML Explore powerful layout functions to make attractive dashboards and other intuitive interfaces Get to grips with Bootstrap and leverage it in your Shiny applications Book Description Although vanilla Shiny applications look attractive with some layout flexibility, you may still want to have more control over how the interface is laid out to produce a dashboard. Hands-On Dashboard Development with Shiny helps you incorporate this in your applications. The book starts by guiding you in producing an application based on the diamonds dataset included in the ggplot2 package. You'll create a single application, but the interface will be reskinned and rebuilt throughout using different methods to illustrate their uses and functions using HTML, CSS, and JavaScript. You will also learn to develop an application that creates documents and reports using R Markdown. Furthermore, the book demonstrates the use of HTML templates and the Bootstrap framework. Moving along, you will learn how to produce dashboards using the Shiny command and dashboard package. Finally, you will learn how to lay out applications using a wide range of built-in functions. By the end of the book, you will have an understanding of the principles that underpin layout in Shiny applications, including sections*

*of HTML added to a vanilla Shiny application, HTML interfaces written from scratch, dashboards, navigation bars, and interfaces. What you will learn Add HTML to a Shiny application and write its interfaces from scratch in HTML Use built-in Shiny functions to produce attractive and flexible layouts Produce dashboards, adding icons and notifications Explore Bootstrap themes to lay out your applications Get insights into UI development with hands-on examples Use R Markdown to create and download reports Who this book is for If you have some experience writing Shiny applications and want to use HTML, CSS, and Bootstrap to make custom interfaces, then this book is for you.*

*Web Application Development with R Using Shiny Apr 22 2022 Integrate the power of R with the simplicity of Shiny to deliver cutting-edge analytics over the Web About This Book Use Shiny's built-in functions to produce engaging user interfaces, and integrate them into your own web pages Implement powerful user-contributed packages to access graphics from the web, make your own dashboards, use interactive maps, and more Extend Shiny using JavaScript and jQuery with minimal coding using this handy, step-by-step guide Who This Book Is For This book is for anybody who wants to produce interactive data summaries over the web, whether you want to share them with a few colleagues or the whole world. No previous experience with R, Shiny, HTML, or CSS is required to begin using this book, although you should possess some previous experience with programming in a different language. What You Will Learn Build interactive applications using Shiny's built-in widgets Use the built-in layout functions in Shiny to produce user-friendly applications Integrate Shiny applications with web pages and customize them using HTML and CSS Harness the power of JavaScript and jQuery to customize your applications Engage your users and build better analytics using interactive plots Debug your applications using Shiny's built-in functions Deliver simple and powerful analytics across your organization using Shiny dashboards Share your applications with colleagues or over the Internet using cloud services or your own server In Detail R is a highly flexible and powerful tool for analyzing and visualizing data. Most of the applications built using various libraries with R are desktop-based. But what if you want to go on the web? Here comes Shiny to your rescue! Shiny allows you to create interactive web applications using the excellent analytical and graphical capabilities of R. This book will guide you through basic data management and analysis with R through your first Shiny application, and then show you how to integrate Shiny applications with your own web pages. Finally, you will learn how to finely control the inputs and outputs of your application, along with using other packages to build state-of-the-art applications, including dashboards. Style and approach Learn by doing! Each chapter includes code and examples to use and adapt for your own applications. As the chapters progress, the code and examples are built upon until you have all the materials required to build a large, complex, real-world analytics application.*

*Hands-On Data Science with R Mar 09 2021 A hands-on guide for professionals to perform various data science tasks in R Key Features Explore the popular R packages for data science Use R for efficient data mining, text analytics and feature engineering Become a thorough data science professional with the help of hands-on examples and use-cases in R Book Description R is the most widely used programming language, and when used in association with data science, this powerful combination will solve the complexities involved with unstructured datasets in the real world. This book covers the entire data science ecosystem for aspiring data scientists, right from zero to a level where you are confident enough to get hands-on with real-world data science problems. The book starts with an introduction to data science and introduces readers to popular R libraries for executing data science routine tasks. This book covers all the important processes in data science such as data gathering, cleaning data, and then uncovering patterns from it. You will explore algorithms such as machine learning algorithms, predictive analytical models, and finally deep learning algorithms. You will learn to run the most powerful visualization packages available in R so as to ensure that you can easily*

*derive insights from your data. Towards the end, you will also learn how to integrate R with Spark and Hadoop and perform large-scale data analytics without much complexity. What you will learn*  
*Understand the R programming language and its ecosystem of packages for data science*  
*Obtain and clean your data before processing*  
*Master essential exploratory techniques for summarizing data*  
*Examine various machine learning prediction, models*  
*Explore the H2O analytics platform in R for deep learning*  
*Apply data mining techniques to available datasets*  
*Work with interactive visualization packages in R*  
*Integrate R with Spark and Hadoop for large-scale data analytics*  
*Who this book is for*  
*If you are a budding data scientist keen to learn about the popular pandas library, or a Python developer looking to step into the world of data analysis, this book is the ideal resource you need to get started. Some programming experience in Python will be helpful to get the most out of this course*

*R Markdown Dec 06 2020*  
*R Markdown: The Definitive Guide is the first official book authored by the core R Markdown developers that provides a comprehensive and accurate reference to the R Markdown ecosystem. With R Markdown, you can easily create reproducible data analysis reports, presentations, dashboards, interactive applications, books, dissertations, websites, and journal articles, while enjoying the simplicity of Markdown and the great power of R and other languages. In this book, you will learn*  
*Basics: Syntax of Markdown and R code chunks, how to generate figures and tables, and how to use other computing languages*  
*Built-in output formats of R Markdown: PDF/HTML/Word/RTF/Markdown documents and ioslides/Slidy/Beamer/PowerPoint presentations*  
*Extensions and applications: Dashboards, Tufte handouts, xaringan/reveal.js presentations, websites, books, journal articles, and interactive tutorials*  
*Advanced topics: Parameterized reports, HTML widgets, document templates, custom output formats, and Shiny documents.*  
*Yihui Xie is a software engineer at RStudio. He has authored and co-authored several R packages, including knitr, rmarkdown, bookdown, blogdown, shiny, xaringan, and animation. He has published three other books, Dynamic Documents with R and knitr, bookdown: Authoring Books and Technical Documents with R Markdown, and blogdown: Creating Websites with R Markdown. J.J. Allaire is the founder of RStudio and the creator of the RStudio IDE. He is an author of several packages in the R Markdown ecosystem including rmarkdown, flexdashboard, learnr, and radix. Garrett Golemund is the co-author of R for Data Science and author of Hands-On Programming with R. He wrote the lubridate R package and works for RStudio as an advocate who trains engineers to do data science with R and the Tidyverse.*

*Applied Big Data Analytics and Its Role in COVID-19 Research Jun 12 2021*  
*There has been a multitude of studies focused on the COVID-19 pandemic across fields and disciplines as all sectors of life have had to adjust the way things are done and adapt to the constantly shifting environment. These studies are crucial as they provide support and perspectives on how things are changing and what needs to be done to stay afloat. Connecting COVID-19-related studies and big data analytics is crucial for the advancement of industrial applications and research areas. Applied Big Data Analytics and Its Role in COVID-19 Research introduces the most recent industrial applications and research topics on COVID-19 with big data analytics. Featuring coverage on a broad range of big data technologies such as data gathering, artificial intelligence, smart diagnostics, and mining mobility, this publication provides concrete examples and cases of usage of data-driven projects in COVID-19 research. This reference work is a vital resource for data scientists, technical managers, researchers, scholars, practitioners, academicians, instructors, and students.*

*R Visualizations Jul 13 2021*  
*R Visualizations: Derive Meaning from Data focuses on one of the two major topics of data analytics: data visualization, a.k.a., computer graphics. In the book, major R systems for visualization are discussed, organized by topic and not by system. Anyone doing data*

*analysis will be shown how to use R to generate any of the basic visualizations with the R visualization systems. Further, this book introduces the author's lessR system, which always can accomplish a visualization with less coding than the use of other systems, sometimes dramatically so, and also provides accompanying statistical analyses. Key Features Presents thorough coverage of the leading R visualization system, ggplot2. Gives specific guidance on using base R graphics to attain visualizations of the same quality as those provided by ggplot2. Shows how to create a wide range of data visualizations: distributions of categorical and continuous variables, many types of scatterplots including with a third variable, time series, and maps. Inclusion of the various approaches to R graphics organized by topic instead of by system. Presents the recent work on interactive visualization in R. David W. Gerbing received his PhD from Michigan State University in 1979 in quantitative analysis, and currently is a professor of quantitative analysis in the School of Business at Portland State University. He has published extensively in the social and behavioral sciences with a focus on quantitative methods. His lessR package has been in development since 2009.*

*Advances in the Diagnosis and Control of John's Disease Dec 26 2019*

*R Data Visualization Recipes Jul 01 2020 Translate your data into info-graphics using popular packages in R About This Book Use R's popular packages—such as ggplot2, ggvis, ggforce, and more—to create custom, interactive visualization solutions. Create, design, and build interactive dashboards using Shiny A highly practical guide to help you get to grips with the basics of data visualization techniques, and how you can implement them using R Who This Book Is For If you are looking to create custom data visualization solutions using the R programming language and are stuck somewhere in the process, this book will come to your rescue. Prior exposure to packages such as ggplot2 would be useful but not necessary. However, some R programming knowledge is required. What You Will Learn Get to know various data visualization libraries available in R to represent data Generate elegant codes to craft graphics using ggplot2, ggvis and plotly Add elements, text, animation, and colors to your plot to make sense of data Deepen your knowledge by adding bar-charts, scatterplots, and time series plots using ggplot2 Build interactive dashboards using Shiny. Color specific map regions based on the values of a variable in your data frame Create high-quality journal-publishable scatterplots Create and design various three-dimensional and multivariate plots In Detail R is an open source language for data analysis and graphics that allows users to load various packages for effective and better data interpretation. Its popularity has soared in recent years because of its powerful capabilities when it comes to turning different kinds of data into intuitive visualization solutions. This book is an update to our earlier R data visualization cookbook with 100 percent fresh content and covering all the cutting edge R data visualization tools. This book is packed with practical recipes, designed to provide you with all the guidance needed to get to grips with data visualization using R. It starts off with the basics of ggplot2, ggvis, and plotly visualization packages, along with an introduction to creating maps and customizing them, before progressively taking you through various ggplot2 extensions, such as ggforce, ggrepel, and gganimate. Using real-world datasets, you will analyze and visualize your data as histograms, bar graphs, and scatterplots, and customize your plots with various themes and coloring options. The book also covers advanced visualization aspects such as creating interactive dashboards using Shiny By the end of the book, you will be equipped with key techniques to create impressive data visualizations with professional efficiency and precision. Style and approach This book is packed with practical recipes, designed to provide you with all the guidance needed to get to grips with data visualization with R. You will learn to leverage the power of R and ggplot2 to create highly customizable data visualizations of varying complexities. The readers will then learn how to create, design, and build interactive dashboards using Shiny.*

*Emerging Technologies for Education Aug 22 2019 This book constitutes the refereed conference*

*proceedings of the 6th International Symposium on Emerging Technologies for Education, SETE 2021, held in Zhuhai, China in November 2021. 35 full papers were accepted together with 8 short papers out of 58 submissions. The papers focus on the following subjects: Emerging Technologies for Education, Digital Technology, Creativity, and Education; Education Technology (Edtech) and ICT for Education; Education + AI; Adaptive Learning, Emotion and Behaviour Recognition and Understanding in Education; as well as papers from the International Symposium on User Modeling and Language Learning (UMLL2021) and the International Workshop on Educational Technology for Language Learning (ETLL 2021).*

*R Programming Fundamentals Aug 02 2020 Study data analysis and visualization to successfully analyze data with R Key Features Get to grips with data cleaning methods Explore statistical concepts and programming in R, including best practices Build a data science project with real-world examples Book Description R Programming Fundamentals, focused on R and the R ecosystem, introduces you to the tools for working with data. To start with, you'll understand you how to set up R and RStudio, followed by exploring R packages, functions, data structures, control flow, and loops. Once you have grasped the basics, you'll move on to studying data visualization and graphics. You'll learn how to build statistical and advanced plots using the powerful ggplot2 library. In addition to this, you'll discover data management concepts such as factoring, pivoting, aggregating, merging, and dealing with missing values. By the end of this book, you'll have completed an entire data science project of your own for your portfolio or blog. What you will learn Use basic programming concepts of R such as loading packages, arithmetic functions, data structures, and flow control Import data to R from various formats such as CSV, Excel, and SQL Clean data by handling missing values and standardizing fields Perform univariate and bivariate analysis using ggplot2 Create statistical summary and advanced plots such as histograms, scatter plots, box plots, and interaction plots Apply data management techniques, such as factoring, pivoting, aggregating, merging, and dealing with missing values, on the example datasets Who this book is for R Programming Fundamentals is for you if you are an analyst who wants to grow in the field of data science and explore the latest tools.*

*Geocomputation with R Oct 16 2021 Geocomputation with R is for people who want to analyze, visualize and model geographic data with open source software. It is based on R, a statistical programming language that has powerful data processing, visualization, and geospatial capabilities. The book equips you with the knowledge and skills to tackle a wide range of issues manifested in geographic data, including those with scientific, societal, and environmental implications. This book will interest people from many backgrounds, especially Geographic Information Systems (GIS) users interested in applying their domain-specific knowledge in a powerful open source language for data science, and R users interested in extending their skills to handle spatial data. The book is divided into three parts: (I) Foundations, aimed at getting you up-to-speed with geographic data in R, (II) extensions, which covers advanced techniques, and (III) applications to real-world problems. The chapters cover progressively more advanced topics, with early chapters providing strong foundations on which the later chapters build. Part I describes the nature of spatial datasets in R and methods for manipulating them. It also covers geographic data import/export and transforming coordinate reference systems. Part II represents methods that build on these foundations. It covers advanced map making (including web mapping), "bridges" to GIS, sharing reproducible code, and how to do cross-validation in the presence of spatial autocorrelation. Part III applies the knowledge gained to tackle real-world problems, including representing and modeling transport systems, finding optimal locations for stores or services, and ecological modeling. Exercises at the end of each chapter give you the skills needed to tackle a range of geospatial problems. Solutions for each chapter and supplementary materials providing extended examples are available at*

<https://geocompr.github.io/geocompkg/articles/>. Dr. Robin Lovelace is a University Academic Fellow at the University of Leeds, where he has taught R for geographic research over many years, with a focus on transport systems. Dr. Jakub Nowosad is an Assistant Professor in the Department of Geoinformation at the Adam Mickiewicz University in Poznan, where his focus is on the analysis of large datasets to understand environmental processes. Dr. Jannes Muenchow is a Postdoctoral Researcher in the GIScience Department at the University of Jena, where he develops and teaches a range of geographic methods, with a focus on ecological modeling, statistical geocomputing, and predictive mapping. All three are active developers and work on a number of R packages, including *stplanr*, *sabre*, and *RQGIS*.

*R for Everyone* Nov 17 2021 *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.*

*Outstanding User Interfaces with Shiny* Oct 04 2020 *Outstanding User Interfaces with Shiny provides the reader with necessary knowledge to develop beautiful and highly interactive user interfaces. It gives the minimum requirements in HTML/JavaScript and CSS to be able to extend already existing Shiny layouts or develop new templates from scratch. Suitable for anyone with some experience of Shiny, package development and software engineering best practices, this book is an ideal guide for graduates and professionals who wish to bring their app design to the next level. Key Features: Provides a survival kit in web development to seamlessly get started with HTML/CSS/JavaScript Leverage CSS and Sass and higher-level tools like {bslib} to substantially enhance the design of your app in no time A comprehensive guide to the {htmltools} package to seamlessly customize existing layouts Describes in*

*detail how Shiny inputs work and how R and JavaScript communicate Details all the necessary steps to create a production-grade custom template from scratch: packaging, shiny tags creation, validating and testing R components and JavaScript Expose common web development debugging technics Provides a list of existing templates, resources to get started and to explore*

**Introduction to R for Business Intelligence** Nov 05 2020 *Learn how to leverage the power of R for Business Intelligence About This Book Use this easy-to-follow guide to leverage the power of R analytics and make your business data more insightful. This highly practical guide teaches you how to develop dashboards that help you make informed decisions using R. Learn the A to Z of working with data for Business Intelligence with the help of this comprehensive guide. Who This Book Is For This book is for data analysts, business analysts, data science professionals or anyone who wants to learn analytic approaches to business problems. Basic familiarity with R is expected. What You Will Learn Extract, clean, and transform data Validate the quality of the data and variables in datasets Learn exploratory data analysis Build regression models Implement popular data-mining algorithms Visualize results using popular graphs Publish the results as a dashboard through Interactive Web Application frameworks In Detail Explore the world of Business Intelligence through the eyes of an analyst working in a successful and growing company. Learn R through use cases supporting different functions within that company. This book provides data-driven and analytically focused approaches to help you answer questions in operations, marketing, and finance. In Part 1, you will learn about extracting data from different sources, cleaning that data, and exploring its structure. In Part 2, you will explore predictive models and cluster analysis for Business Intelligence and analyze financial times series. Finally, in Part 3, you will learn to communicate results with sharp visualizations and interactive, web-based dashboards. After completing the use cases, you will be able to work with business data in the R programming environment and realize how data science helps make informed decisions and develops business strategy. Along the way, you will find helpful tips about R and Business Intelligence. Style and approach This book will take a step-by-step approach and instruct you in how you can achieve Business Intelligence from scratch using R. We will start with extracting data and then move towards exploring, analyzing, and visualizing it. Eventually, you will learn how to create insightful dashboards that help you make informed decisions—and all of this with the help of real-life examples.*

**Python and R for the Modern Data Scientist** Apr 29 2020 *Success in data science depends on the flexible and appropriate use of tools. That includes Python and R, two of the foundational programming languages in the field. This book guides data scientists from the Python and R communities along the path to becoming bilingual. By recognizing the strengths of both languages, you'll discover new ways to accomplish data science tasks and expand your skill set. Authors Rick Scavetta and Boyan Angelov explain the parallel structures of these languages and highlight where each one excels, whether it's their linguistic features or the powers of their open source ecosystems. You'll learn how to use Python and R together in real-world settings and broaden your job opportunities as a bilingual data scientist. Learn Python and R from the perspective of your current language Understand the strengths and weaknesses of each language Identify use cases where one language is better suited than the other Understand the modern open source ecosystem available for both, including packages, frameworks, and workflows Learn how to integrate R and Python in a single workflow Follow a case study that demonstrates ways to use these languages together*

**R Projects For Dummies** Oct 24 2019 *Make the most of R's extensive toolset R Projects For Dummies offers a unique learn-by-doing approach. You will increase the depth and breadth of your R skillset by completing a wide variety of projects. By using R's graphics, interactive, and machine learning tools, you'll learn to apply R's extensive capabilities in an array of scenarios. The depth of the project*

*experience is unmatched by any other content online or in print. And you just might increase your statistics knowledge along the way, too! R is a free tool, and it's the basis of a huge amount of work in data science. It's taking the place of costly statistical software that sometimes takes a long time to learn. One reason is that you can use just a few R commands to create sophisticated analyses. Another is that easy-to-learn R graphics enable you make the results of those analyses available to a wide audience. This book will help you sharpen your skills by applying them in the context of projects with R, including dashboards, image processing, data reduction, mapping, and more. Appropriate for R users at all levels Helps R programmers plan and complete their own projects Focuses on R functions and packages Shows how to carry out complex analyses by just entering a few commands If you're brand new to R or just want to brush up on your skills, R Projects For Dummies will help you complete your projects with ease.*

*Information in Contemporary Society Mar 21 2022 This book constitutes the proceedings of the 14th International Conference on Information in Contemporary Society, iConference 2019, held in Washington, DC, USA, in March/April 2019. The 44 full papers and 33 short papers presented in this volume were carefully reviewed and selected from 133 submitted full papers and 88 submitted short papers. The papers are organized in the following topical sections: Scientific work and data practices; methodological concerns in (big) data research; concerns about "smart" interactions and privacy; identity questions in online communities; measuring and tracking scientific literature; limits and affordances of automation; collecting data about vulnerable populations; supporting communities through public libraries and infrastructure; information behaviors in academic environments; data-driven storytelling and modeling; online activism; digital libraries, curation and preservation; social-media text mining and sentiment analysis; data and information in the public sphere; engaging with multi-media content; understanding online behaviors and experiences; algorithms at work; innovation and professionalization in technology communities; information behaviors on Twitter; data mining and NLP; informing technology design through offline experiences; digital tools for health management; environmental and visual literacy; and addressing social problems in iSchool research.*

*Javascript for R Sep 22 2019 Little known to many, R works just as well with JavaScript—this book delves into the various ways both languages can work together. The ultimate aim of this work is to put the reader at ease with inviting JavaScript in their data science workflow. In that respect the book is not teaching one JavaScript but rather we show how little JavaScript can greatly support and enhance R code. Therefore, the focus is on integrating external JavaScript libraries and no prior knowledge of JavaScript is required. Key Features: [?] Easy to pick up. [?] An entry way to learning JavaScript for R. [?] Covers topics not covered anywhere else. [?] Easy to follow along.*

*Learn ggplot2 Using Shiny App Oct 28 2022 This book and app is for practitioners, professionals, researchers, and students who want to learn how to make a plot within the R environment using ggplot2, step-by-step without coding. In widespread use in the statistical communities, R is a free software language and environment for statistical programming and graphics. Many users find R to have a steep learning curve but to be extremely useful once overcome. ggplot2 is an extremely popular package tailored for producing graphics within R but which requires coding and has a steep learning curve itself, and Shiny is an open source R package that provides a web framework for building web applications using R without requiring HTML, CSS, or JavaScript. This manual—"integrating" R, ggplot2, and Shiny—introduces a new Shiny app, Learn ggplot2, that allows users to make plots easily without coding. With the Learn ggplot2 Shiny app, users can make plots using ggplot2 without having to code each step, reducing typos and error messages and allowing users to become familiar with ggplot2 code. The app makes it easy to apply themes, make multiplots (combining several plots into one plot), and download plots as PNG, PDF, or PowerPoint files with editable vector graphics. Users can*

*also make plots on any computer or smart phone. Learn ggplot2 Using Shiny App allows users to Make publication-ready plots in minutes without coding Download plots with desired width, height, and resolution Plot and download plots in png, pdf, and PowerPoint formats, with or without R code and with editable vector graphics*

*Modern Data Science with R Apr 10 2021 From a review of the first edition: "Modern Data Science with R... is rich with examples and is guided by a strong narrative voice. What's more, it presents an organizing framework that makes a convincing argument that data science is a course distinct from applied statistics" (The American Statistician). Modern Data Science with R is a comprehensive data science textbook for undergraduates that incorporates statistical and computational thinking to solve real-world data problems. Rather than focus exclusively on case studies or programming syntax, this book illustrates how statistical programming in the state-of-the-art R/RStudio computing environment can be leveraged to extract meaningful information from a variety of data in the service of addressing compelling questions. The second edition is updated to reflect the growing influence of the tidyverse set of packages. All code in the book has been revised and styled to be more readable and easier to understand. New functionality from packages like sf, purrr, tidymodels, and tidytext is now integrated into the text. All chapters have been revised, and several have been split, re-organized, or re-imagined to meet the shifting landscape of best practice.*

*Learning Shiny Jun 24 2022 Make the most of R's dynamic capabilities and implement web applications with Shiny About This Book Present interactive data visualizations in R within the Shiny framework Construct web dashboards in a simple, intuitive, but fully flexible environment Apply your skills to create a real-world web application with this step-by-step guide Who This Book Is For If you are a data scientist who needs a platform to show your results to a broader audience in an attractive and visual way, or a web developer with no prior experience in R or Shiny, this is the book for you. What You Will Learn Comprehend many useful functions, such as lapply and apply, to process data in R Write and structure different files to create a basic dashboard Develop graphics in R using popular graphical libraries such as ggplot2 and GoogleVis Mount a dashboard on a Linux Server Integrate Shiny with non-R-native visualization, such as D3.js Design and build a web application In Detail R is nowadays one of the most used tools in data science. However, along with Shiny, it is also gaining territory in the web application world, due to its simplicity and flexibility. Shiny is a framework that enables the creation of interactive visualizations written entirely in R and can be displayed in almost any ordinary web browser. It is a package from RStudio, which is an IDE for R. From the fundamentals of R to the administration of multi-concurrent, fully customized web applications, this book explains how to achieve your desired web application in an easy and gradual way. You will start by learning about the fundamentals of R, and will move on to looking at simple and practical examples. These examples will enable you to grasp many useful tools that will assist you in solving the usual problems that can be faced when developing data visualizations. You will then walk through the integration of Shiny with R in general and view the different visualization possibilities out there. Finally, you will put your skills to the test and create your first web application! Style and approach This is a comprehensive, step-by-step guide that will allow you to learn and make full use of R and Shiny's capabilities in a gradual way, together with clear, applied examples.*

*Mastering Shiny Aug 26 2022 Master the Shiny web framework—and take your R skills to a whole new level. By letting you move beyond static reports, Shiny helps you create fully interactive web apps for data analyses. Users will be able to jump between datasets, explore different subsets or facets of the data, run models with parameter values of their choosing, customize visualizations, and much more. Hadley Wickham from RStudio shows data scientists, data analysts, statisticians, and scientific researchers with no knowledge of HTML, CSS, or JavaScript how to create rich web apps from R. This*

*in-depth guide provides a learning path that you can follow with confidence, as you go from a Shiny beginner to an expert developer who can write large, complex apps that are maintainable and performant. Get started: Discover how the major pieces of a Shiny app fit together Put Shiny in action: Explore Shiny functionality with a focus on code samples, example apps, and useful techniques Master reactivity: Go deep into the theory and practice of reactive programming and examine reactive graph components Apply best practices: Examine useful techniques for making your Shiny apps work well in production*