

Data Visualization With Python And Javascript

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Comprehending as with ease as treaty even more than supplementary will meet the expense of each success. next to, the statement as well as perspicacity of this data visualization with python and javascript can be taken as capably as picked to act.

Pro D3.js - Marcos Iglesias 2020-03-19

Go beyond the basics of D3.js to create maintainable, modular, and testable charts and to package them into a library that can be distributed as open source software or kept for private use. This book will show you how to transform regular D3.js chart code into reusable and extendable modules. You know the basics of working with D3.js, but it's time to become a professional D3.js practitioner. This book is your launching pad to refactoring code, composing complex visualizations from small components, working as a team with other developers, and integrating charts with a Continuous Integration system. You'll begin by creating a production-ready chart using D3.js v5, ES2015, and a test-driven approach and then move on to using and extending Britecharts, the reusable charting library based on Reusable API patterns. Finally, you'll see how to use D3.js along with React to document and build your charts to compose a charting library you can release into the NPM repository. With Pro D3.js, you'll become an accomplished D3.js developer in no time. What You Will Learn Create v5 D3.js charts with ES2016 and unit tests Develop modular, testable and extensible code with the Reusable API pattern Work with and extend Britecharts, a reusable charting library created at Eventbrite Use Webpack and npm to create and publish a charting library from your own chart collections Write reference documentation and build a documentation homepage for your library. Who This Book Is For Data scientists, data visualization engineers, and frontend developers with a fundamental knowledge of D3.js and some experience with JavaScript, as well as data journalists and consultants.

Python for Data Analysis - Wes McKinney 2017-09-25

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

Mastering Python Data Visualization - Kirthi Raman 2015-10-26

Generate effective results in a variety of visually appealing charts using the plotting packages in Python About This Book- Explore various tools and their strengths while building meaningful representations that can make it easier to understand data- Packed with computational methods and algorithms in diverse fields of science- Written in an easy-to-follow categorical style, this book discusses some niche techniques that will make your code easier to work with and reuse Who This Book Is For If you are a Python developer who performs data visualization and wants to develop existing knowledge about Python to build analytical results and produce some amazing visual display, then this book is for you. A basic knowledge level and understanding of Python libraries is assumed. What You Will Learn- Gather,

cleanse, access, and map data to a visual framework- Recognize which visualization method is applicable and learn best practices for data visualization- Get acquainted with reader-driven narratives and author-driven narratives and the principles of perception- Understand why Python is an effective tool to be used for numerical computation much like MATLAB, and explore some interesting data structures that come with it- Explore with various visualization choices how Python can be very useful in computation in the field of finance and statistics- Get to know why Python is the second choice after Java, and is used frequently in the field of machine learning- Compare Python with other visualization approaches using Julia and a JavaScript-based framework such as D3.js- Discover how Python can be used in conjunction with NoSQL such as Hive to produce results efficiently in a distributed environment In Detail Python has a handful of open source libraries for numerical computations involving optimization, linear algebra, integration, interpolation, and other special functions using array objects, machine learning, data mining, and plotting. Pandas have a productive environment for data analysis. These libraries have a specific purpose and play an important role in the research into diverse domains including economics, finance, biological sciences, social science, health care, and many more. The variety of tools and approaches available within Python community is stunning, and can bolster and enhance visual story experiences. This book offers practical guidance to help you on the journey to effective data visualization. Commencing with a chapter on the data framework, which explains the transformation of data into information and eventually knowledge, this book subsequently covers the complete visualization process using the most popular Python libraries with working examples. You will learn the usage of Numpy, Scipy, IPython, Matplotlib, Pandas, Patsy, and Scikit-Learn with a focus on generating results that can be visualized in many different ways. Further chapters are aimed at not only showing advanced techniques such as interactive plotting; numerical, graphical linear, and non-linear regression; clustering and classification, but also in helping you understand the aesthetics and best practices of data visualization. The book concludes with interesting examples such as social networks, directed graph examples in real-life, data structures appropriate for these problems, and network analysis. By the end of this book, you will be able to effectively solve a broad set of data analysis problems. Style and approach The approach of this book is not step by step, but rather categorical. The categories are based on fields such as bioinformatics, statistical and machine learning, financial computation, and linear algebra. This approach is beneficial for the community in many different fields of work and also helps you learn how one approach can make sense across many fields

Data Analysis and Visualization Using Python - Dr. Ossama Embarak 2018-11-20

Look at Python from a data science point of view and learn proven techniques for data visualization as used in making critical business decisions. Starting with an introduction to data science with Python, you will take a closer look at the Python environment and get acquainted with editors such as Jupyter Notebook and Spyder. After going through a primer on Python programming, you will grasp fundamental Python programming techniques used in data science. Moving on to data visualization, you will see how it caters to modern business needs and forms a key factor in decision-making. You will also take a look at some popular data visualization libraries in Python. Shifting focus to data structures, you will learn the various aspects of data structures from a data science perspective. You will then work with file I/O and regular expressions in Python, followed by gathering and cleaning data. Moving on to exploring and analyzing data, you will look at advanced data structures in Python. Then, you will take a deep dive into data visualization techniques,

going through a number of plotting systems in Python. In conclusion, you will complete a detailed case study, where you'll get a chance to revisit the concepts you've covered so far. What You Will Learn Use Python programming techniques for data science Master data collections in Python Create engaging visualizations for BI systems Deploy effective strategies for gathering and cleaning data Integrate the Seaborn and Matplotlib plotting systems Who This Book Is For Developers with basic Python programming knowledge looking to adopt key strategies for data analysis and visualizations using Python.

Python Data Visualization Cookbook - Igor Milovanovic 2015-11-30

Over 70 recipes to get you started with popular Python libraries based on the principal concepts of data visualization About This Book Learn how to set up an optimal Python environment for data visualization Understand how to import, clean and organize your data Determine different approaches to data visualization and how to choose the most appropriate for your needs Who This Book Is For If you already know about Python programming and want to understand data, data formats, data visualization, and how to use Python to visualize data then this book is for you. What You Will Learn Introduce yourself to the essential tooling to set up your working environment Explore your data using the capabilities of standard Python Data Library and Panda Library Draw your first chart and customize it Use the most popular data visualization Python libraries Make 3D visualizations mainly using mplot3d Create charts with images and maps Understand the most appropriate charts to describe your data Know the matplotlib hidden gems Use plot.ly to share your visualization online In Detail Python Data Visualization Cookbook will progress the reader from the point of installing and setting up a Python environment for data manipulation and visualization all the way to 3D animations using Python libraries. Readers will benefit from over 60 precise and reproducible recipes that will guide the reader towards a better understanding of data concepts and the building blocks for subsequent and sometimes more advanced concepts. Python Data Visualization Cookbook starts by showing how to set up matplotlib and the related libraries that are required for most parts of the book, before moving on to discuss some of the lesser-used diagrams and charts such as Gantt Charts or Sankey diagrams. Initially it uses simple plots and charts to more advanced ones, to make it easy to understand for readers. As the readers will go through the book, they will get to know about the 3D diagrams and animations. Maps are irreplaceable for displaying geo-spatial data, so this book will also show how to build them. In the last chapter, it includes explanation on how to incorporate matplotlib into different environments, such as a writing system, LaTeX, or how to create Gantt charts using Python. Style and approach A step-by-step recipe based approach to data visualization. The topics are explained sequentially as cookbook recipes consisting of a code snippet and the resulting visualization.

Mistering Social Media Mining with Python - Marco Bonzanini 2016-07-29

Acquire and analyze data from all corners of the social web with Python About This Book Make sense of highly unstructured social media data with the help of the insightful use cases provided in this guide Use this easy-to-follow, step-by-step guide to apply analytics to complicated and messy social data This is your one-stop solution to fetching, storing, analyzing, and visualizing social media data Who This Book Is For This book is for intermediate Python developers who want to engage with the use of public APIs to collect data from social media platforms and perform statistical analysis in order to produce useful insights from data. The book assumes a basic understanding of the Python Standard Library and provides practical examples to guide you toward the creation of your data analysis project based on social data. What You Will Learn Interact with a social media platform via their public API with Python Store social data in a convenient format for data analysis Slice and dice social data using Python tools for data science Apply text analytics techniques to understand what people are talking about on social media Apply advanced statistical and analytical techniques to produce useful insights from data Build beautiful visualizations with web technologies to explore data and present data products In Detail Your social media is filled with a wealth of hidden data - unlock it with the power of Python. Transform your understanding of your clients and customers when you use Python to solve the problems of understanding consumer behavior and turning raw data into actionable customer insights. This book will help you acquire and analyze data from leading social media sites. It will show you how to employ scientific Python tools to mine popular social websites such as Facebook, Twitter, Quora, and more. Explore the Python libraries used for social media mining, and get the tips, tricks, and insider insight you need to make the most of them. Discover how to develop data

mining tools that use a social media API, and how to create your own data analysis projects using Python for clear insight from your social data. Style and approach This practical, hands-on guide will help you learn everything you need to perform data mining for social media. Throughout the book, we take an example-oriented approach to use Python for data analysis and provide useful tips and tricks that you can use in day-to-day tasks.

Mastering Python Data Visualization - Kirthi Raman 2015-10-27

Generate effective results in a variety of visually appealing charts using the plotting packages in Python About This Book Explore various tools and their strengths while building meaningful representations that can make it easier to understand data Packed with computational methods and algorithms in diverse fields of science Written in an easy-to-follow categorical style, this book discusses some niche techniques that will make your code easier to work with and reuse Who This Book Is For If you are a Python developer who performs data visualization and wants to develop existing knowledge about Python to build analytical results and produce some amazing visual display, then this book is for you. A basic knowledge level and understanding of Python libraries is assumed. What You Will Learn Gather, cleanse, access, and map data to a visual framework Recognize which visualization method is applicable and learn best practices for data visualization Get acquainted with reader-driven narratives and author-driven narratives and the principles of perception Understand why Python is an effective tool to be used for numerical computation much like MATLAB, and explore some interesting data structures that come with it Explore with various visualization choices how Python can be very useful in computation in the field of finance and statistics Get to know why Python is the second choice after Java, and is used frequently in the field of machine learning Compare Python with other visualization approaches using Julia and a JavaScript-based framework such as D3.js Discover how Python can be used in conjunction with NoSQL such as Hive to produce results efficiently in a distributed environment In Detail Python has a handful of open source libraries for numerical computations involving optimization, linear algebra, integration, interpolation, and other special functions using array objects, machine learning, data mining, and plotting. Pandas have a productive environment for data analysis. These libraries have a specific purpose and play an important role in the research into diverse domains including economics, finance, biological sciences, social science, health care, and many more. The variety of tools and approaches available within Python community is stunning, and can bolster and enhance visual story experiences. This book offers practical guidance to help you on the journey to effective data visualization. Commencing with a chapter on the data framework, which explains the transformation of data into information and eventually knowledge, this book subsequently covers the complete visualization process using the most popular Python libraries with working examples. You will learn the usage of Numpy, Scipy, IPython, Matplotlib, Pandas, Patsy, and Scikit-Learn with a focus on generating results that can be visualized in many different ways. Further chapters are aimed at not only showing advanced techniques such as interactive plotting; numerical, graphical linear, and non-linear regression; clustering and classification, but also in helping you understand the aesthetics and best practices of data visualization. The book concludes with interesting examples such as social networks, directed graph examples in real-life, data structures appropriate for these problems, and network analysis. By the end of this book, you will be able to effectively solve a broad set of data analysis problems. Style and approach The approach of this book is not step by step, but rather categorical. The categories are based on fields such as bioinformatics, statistical and machine learning, financial computation, and linear algebra. This approach is beneficial for the community in many different fields of work and also helps you learn how one approach can make sense across many fields

Data Visualization with Python - Mario Döbler 2019-02-28

Understand, explore, and effectively present data using the powerful data visualization techniques of Python programming. Key Features Study key visualization tools and techniques with real-world data Explore industry-standard plotting libraries, including Matplotlib and Seaborn Breathe life into your visuals with exciting widgets and animations using Bokeh Book Description Data Visualization with Python reviews the spectrum of data visualization and its importance. Designed for beginners, it'll help you learn about statistics by computing mean, median, and variance for certain numbers. In the first few chapters, you'll be able to take a quick tour of key NumPy and Pandas techniques, which include indexing, slicing, iterating,

filtering, and grouping. The book keeps pace with your learning needs, introducing you to various visualization libraries. As you work through chapters on Matplotlib and Seaborn, you'll discover how to create visualizations in an easier way. After a lesson on these concepts, you can then brush up on advanced visualization techniques like geoplots and interactive plots. You'll learn how to make sense of geospatial data, create interactive visualizations that can be integrated into any webpage, and take any dataset to build beautiful visualizations. What's more? You'll study how to plot geospatial data on a map using Choropleth plot and understand the basics of Bokeh, extending plots by adding widgets and animating the display of information. By the end of this book, you'll be able to put your learning into practice with an engaging activity, where you can work with a new dataset to create an insightful capstone visualization. What you will learn Understand and use various plot types with Python Explore and work with different plotting libraries Learn to create effective visualizations Improve your Python data wrangling skills Hone your skill set by using tools like Matplotlib, Seaborn, and Bokeh Reinforce your knowledge of various data formats and representations Who this book is for Data Visualization with Python is designed for developers and scientists, who want to get into data science or want to use data visualizations to enrich their personal and professional projects. You do not need any prior experience in data analytics and visualization, however, it'll help you to have some knowledge of Python and familiarity with high school level mathematics. Even though this is a beginner level course on data visualization, experienced developers will be able to improve their Python skills by working with real-world data.

Fullstack D3 and Data Visualization - Amelia Wattenberger 2019-02

Build beautiful data visualizations with D3 The Fullstack D3 book is the complete guide to D3. With dozens of code examples showing each step, you can gain new insights into your data by creating visualizations. Learn how to quickly turn data into insights with D3 We have the data. But it needs to be understood by humans. The best way to convert this data into an understandable format is to mold it into a data visualization. And D3 is the best tool for job if you need to create custom data visualizations. With Fullstack D3 and Data Visualization you and your team will be able to share key insights, uncover problems before they start, and impress your boss by creating gorgeous visualizations. What's Inside Chapter 0: Introduction When would you want to use D3.js? There is a spectrum of libraries to create charts on the web: on one end, you have easy-to-use, basic libraries that will create a standard chart type. Chapter 1: Making your first chart In this chapter we make a line chart. Line charts are a great starting place because of their popularity, but also because of their simplicity. Chapter 2: Making a scatterplot When looking at the relationship between two metrics, a scatterplot is a good choice. In this chapter we show how to create a scatterplot. Chapter 3: Making a bar chart In this chapter we cover how to create a histogram, which is a bar chart that shows the distribution of one metric, with the metric values on the x axis and the frequency of values on the y axis. Chapter 4: Animations and Transitions When we update our charts, we can animate elements from their old to their new positions. These animations can be visually exciting, but more importantly, they have functional benefits. Chapter 5: Interactions The biggest advantage of creating charts with JavaScript is the ability to respond to user input. Chapter 6: Making a map Maps are also uniquely good at answering geography-based questions. In this chapter, we'll build a map and learn how to plot values within a location. Chapter 7: Data Visualization Basics Now that we're comfortable with how to create a chart, we should zoom out a bit and talk about what chart to create. Chapter 8: Common Charts In this chapter, we talk about common chart types and when to use them. Chapter 9: Dashboard Design A dashboard is any web interface that makes sense out of dynamic data, and in this chapter we learn how to make one. Chapter 10: Advanced Visualization: Marginal Histogram First, we'll focus on enhancing a chart we've already made: our scatter plot. This chart will have multiple goals, all exploring the daily temperature ranges in our weather dataset. Chapter 11: Advanced Visualization: Radial Weather Chart We talked about radar charts in Chapter 10. For this project, we'll build a more complex radar chart. Chapter 12: Advanced Visualization: Animated Sankey Diagram In this project, we'll be simulating real data and creating an animated diagram to engage our viewers. Chapter 13: D3 and React What's the best way to draw a chart within React? It turns out that there is a fair bit of overlap in functionality between a React and D3 - we'll discuss how we can create blazing fast charts using the two together. Chapter 14: D3 and Angular In this chapter we show how to create optimized SVG charts using D3 and Angular.

Python: Data Analytics and Visualization - Phuong Vo.T.H 2017-03-31

Understand, evaluate, and visualize data About This Book Learn basic steps of data analysis and how to use Python and its packages A step-by-step guide to predictive modeling including tips, tricks, and best practices Effectively visualize a broad set of analyzed data and generate effective results Who This Book Is For This book is for Python Developers who are keen to get into data analysis and wish to visualize their analyzed data in a more efficient and insightful manner. What You Will Learn Get acquainted with NumPy and use arrays and array-oriented computing in data analysis Process and analyze data using the time-series capabilities of Pandas Understand the statistical and mathematical concepts behind predictive analytics algorithms Data visualization with Matplotlib Interactive plotting with NumPy, Scipy, and MKL functions Build financial models using Monte-Carlo simulations Create directed graphs and multi-graphs Advanced visualization with D3 In Detail You will start the course with an introduction to the principles of data analysis and supported libraries, along with NumPy basics for statistics and data processing. Next, you will overview the Pandas package and use its powerful features to solve data-processing problems. Moving on, you will get a brief overview of the Matplotlib API .Next, you will learn to manipulate time and data structures, and load and store data in a file or database using Python packages. You will learn how to apply powerful packages in Python to process raw data into pure and helpful data using examples. You will also get a brief overview of machine learning algorithms, that is, applying data analysis results to make decisions or building helpful products such as recommendations and predictions using Scikit-learn. After this, you will move on to a data analytics specialization—predictive analytics. Social media and IOT have resulted in an avalanche of data. You will get started with predictive analytics using Python. You will see how to create predictive models from data. You will get balanced information on statistical and mathematical concepts, and implement them in Python using libraries such as Pandas, scikit-learn, and NumPy. You'll learn more about the best predictive modeling algorithms such as Linear Regression, Decision Tree, and Logistic Regression. Finally, you will master best practices in predictive modeling. After this, you will get all the practical guidance you need to help you on the journey to effective data visualization. Starting with a chapter on data frameworks, which explains the transformation of data into information and eventually knowledge, this path subsequently cover the complete visualization process using the most popular Python libraries with working examples This Learning Path combines some of the best that Packt has to offer in one complete, curated package. It includes content from the following Packt products: Getting Started with Python Data Analysis, Phuong Vo.T.H & Martin Czygan Learning Predictive Analytics with Python, Ashish Kumar Mastering Python Data Visualization, Kirthi Raman Style and approach The course acts as a step-by-step guide to get you familiar with data analysis and the libraries supported by Python with the help of real-world examples and datasets. It also helps you gain practical insights into predictive modeling by implementing predictive-analytics algorithms on public datasets with Python. The course offers a wealth of practical guidance to help you on this journey to data visualization *Visual Storytelling with D3*

Master D3, Today's Most Powerful Tool for Visualizing Data on the Web Data-driven graphics are everywhere these days, from websites and mobile apps to interactive journalism and high-end presentations. Using D3, you can create graphics that are visually stunning and powerfully effective. Visual Storytelling with D3 is a hands-on, full-color tutorial that teaches you to design charts and data visualizations to tell your story quickly and intuitively, and that shows you how to wield the powerful D3 JavaScript library. Drawing on his extensive experience as a professional graphic artist, writer, and programmer, Ritchie S. King walks you through a complete sample project—from conception through data selection and design. Step by step, you'll build your skills, mastering increasingly sophisticated graphical forms and techniques. If you know a little HTML and CSS, you have all the technical background you'll need to master D3. This tutorial is for web designers creating graphics-driven sites, services, tools, or dashboards; online journalists who want to visualize their content; researchers seeking to communicate their results more intuitively; marketers aiming to deepen their connections with customers; and for any data visualization enthusiast. Coverage includes Identifying a data-driven story and telling it visually Creating and manipulating beautiful graphical elements with SVG Shaping web pages with D3 Structuring data so D3 can easily visualize it Using D3's data joins to connect your data to the graphical elements on a

web page Sizing and scaling charts, and adding axes to them Loading and filtering data from external standalone datasets Animating your charts with D3's transitions Adding interactivity to visualizations, including a play button that cycles through different views of your data Finding D3 resources and getting involved in the thriving online D3 community About the Website All of this book's examples are available at ritchiesking.com/book, along with video tutorials, updates, supporting material, and even more examples, as they become available.

[Getting Started with D3](#) - Mike Dewar 2012

Learn how to create beautiful, interactive, browser-based data visualizations with the D3 JavaScript library. This hands-on book shows you how to use a combination of JavaScript and SVG to build everything from simple bar charts to complex infographics. You'll learn how to use basic D3 tools by building visualizations based on real data from the New York Metropolitan Transit Authority. Using historical tables, geographical information, and other data, you'll graph bus breakdowns and accidents and the percentage of subway trains running on time, among other examples. By the end of the book, you'll be prepared to build your own web-based data visualizations with D3. Join a dataset with elements of a webpage, and modify the elements based on the data Map data values onto pixels and colors with D3's scale objects Apply axis and line generators to simplify aspects of building visualizations Create a simple UI that allows users to investigate and compare data Use D3 transitions in your UI to animate important aspects of the data Get an introduction to D3 layout tools for building more sophisticated visualizations If you can code and manipulate data, and know how to work with JavaScript and SVG, this book is for you.

Data Visualization with Python for Beginners: Visualize Your Data Using Pandas, Matplotlib and Seaborn - Ai Publishing 2020-02-14

Data Visualization using Python for Beginners Are you looking for a hands-on approach to learn Python for Data Visualization Fast? Do you need to start learning Python for Data Visualization from Scratch? This book is for you. This book works as guide to present fundamental Python Libraries and basis related to Data Visualization using Python. Data science and data visualization are two different but interrelated concepts. Data science refers to the science of extracting and exploring data in order to find patterns that can be used for decision making at different levels. Data visualization can be considered as a subdomain of data science where you visualize data with the help of graphs and tables in order to find out which data is most significant and can help in the identification of important patterns. This book is dedicated to data visualization and explains how to perform data visualization on a variety of datasets using various data visualization libraries written in the Python programming language. It is suggested that you use this book for data visualization purposes only and not for decision making. For decision making and pattern identification, read this book in conjunction with a dedicated book on machine learning and data science. We will start by digging into Python programming as all the projects are developed using it, and it is currently the most used programming language in the world. We will also explore the most-famous libraries for Data Visualization such as Pandas, Numpy, Matplotlib, Seaborn, etc . What this book offers... You will learn all about python in three modules, one for Plotting with Matplotlib, one for Plotting with Seaborn, and a final one Pandas for Data Visualization. All three modules will contain hands-on projects using real-world datasets and a lot of exercises. Clear and Easy to Understand Solutions All solutions in this book are extensively tested by a group of beta readers. The solutions provided are simplified as much as possible so that they can serve as examples for you to refer to when you are learning a new skill. What this book aims to do... This book is written with one goal in mind - to help beginners overcome their initial obstacles to learning Data Visualization using Python. A lot of times, newbies tend to feel intimidated by coding and data. The goal of this book is to isolate the different concepts so that beginners can gradually gain competency in the fundamentals of Python before working on a project. Beginners in Python coding and Data Science does not have to be scary or frustrating when you take one step at a time. Ready to start practicing and visualizing your data using Python? Click the BUY button now to download this book Topics Covered: Basic Plotting with Matplotlib Advanced Plotting with Matplotlib Introduction to the Python Seaborn Library Advanced Plotting with Seaborn Introduction to Pandas Library for Data Analysis Pandas for Data Visualization 3D Plotting with Matplotlib Interactive Data Visualization with Bokeh Interactive Data Visualization with Plotly Hands-on Project Exercises Click the BUY button and download the book now

to start learning and coding Python for Data Visualization. **** MONEY BACK GUARANTEE BY AMAZON **** If you aren't satisfied, for more information about the amazon refund service please go to the amazon help platform or contact us by sending an email at contact@aispublishing.net. ****GET YOUR COPY NOW, the price will be 19.99\$ soon****

[Zi liao shi jue hua](#) - 2017

[Python Data Visualization Essentials](#) - Kadir Rahman 2021-07-30

Build your data science skills. Start data visualization Using Python. Right away. Become a good data analyst by creating quality data visualizations using Python. KEY FEATURES ● Exciting coverage on loads of Python libraries, including Matplotlib, Seaborn, Pandas, and Plotly. ● Tons of examples, illustrations, and use-cases to demonstrate visual storytelling of varied datasets. ● Covers a strong fundamental understanding of exploratory data analysis (EDA), statistical modeling, and data mining. DESCRIPTION Data visualization plays a major role in solving data science challenges with various capabilities it offers. This book aims to equip you with a sound knowledge of Python in conjunction with the concepts you need to master to succeed as a data visualization expert. The book starts with a brief introduction to the world of data visualization and talks about why it is important, the history of visualization, and the capabilities it offers. You will learn how to do simple Python-based visualization with examples with progressive complexity of key features. The book starts with Matplotlib and explores the power of data visualization with over 50 examples. It then explores the power of data visualization using one of the popular exploratory data analysis-oriented libraries, Pandas. The book talks about statistically inclined data visualization libraries such as Seaborn. The book also teaches how we can leverage bokeh and Plotly for interactive data visualization. Each chapter is enriched and loaded with 30+ examples that will guide you in learning everything about data visualization and storytelling of mixed datasets. WHAT YOU WILL LEARN ● Learn to work with popular Python libraries and frameworks, including Seaborn, Bokeh, and Plotly. ● Practice your data visualization understanding across numerous datasets and real examples. ● Learn to visualize geospatial and time-series datasets. ● Perform correlation and EDA analysis using Pandas and Matplotlib. ● Get to know storytelling of complex and unstructured data using Bokeh and Pandas. ● Learn best practices in writing clean and short python scripts for a quicker visual summary of datasets. WHO THIS BOOK IS FOR This book is for all data analytics professionals, data scientists, and data mining hobbyists who want to be strong data visualizers by learning all the popular Python data visualization libraries. Prior working knowledge of Python is assumed. TABLE OF CONTENTS 1. Introduction to Data Visualization 2. Why Data Visualization 3. Various Data Visualization Elements and Tools 4. Using Matplotlib with Python 5. Using NumPy and Pandas for Plotting 6. Using Seaborn for Visualization 7. Using Bokeh with Python 8. Using Plotly, Folium, and Other Tools for Data Visualization 9. Hands-on Examples and Exercises, Case Studies, and Further Resources

Javascript for R - John Coene 2021-07-15

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.

[Data Wrangling with JavaScript](#) - Ashley Davis 2018-12-17

Why not handle your data analysis in JavaScript? Modern libraries and data handling techniques mean you can collect, clean, process, store, visualize, and present web application data while enjoying the efficiency of a single-language pipeline and data-centric web applications that stay in JavaScript end to end. "Data wrangling with JavaScript" promotes JavaScript to the center of the data analysis stage! With this hands-on guide, you'll create a JavaScript-based data processing pipeline, handle common and exotic data, and master practical troubleshooting strategies. You'll also build interactive visualizations and deploy your apps to production. Each valuable chapter provides a new component for your reusable data wrangling toolkit.

The Grammar of Graphics - Leland Wilkinson 2013-03-09

Written for statisticians, computer scientists, geographers, research and applied scientists, and others interested in visualizing data, this book presents a unique foundation for producing almost every quantitative graphic found in scientific journals, newspapers, statistical packages, and data visualization systems. It was designed for a distributed computing environment, with special attention given to conserving computer code and system resources. While the tangible result of this work is a Java production graphics library, the text focuses on the deep structures involved in producing quantitative graphics from data. It investigates the rules that underlie pie charts, bar charts, scatterplots, function plots, maps, mosaics, and radar charts. These rules are abstracted from the work of Bertin, Cleveland, Kosslyn, MacEachren, Pinker, Tufte, Tukey, Tobler, and other theorists of quantitative graphics.

Interactive Data Visualization for the Web - Scott Murray 2017-08-03

Create and publish your own interactive data visualization projects on the web—even if you have little or no experience with data visualization or web development. It's inspiring and fun with this friendly, accessible, and practical hands-on introduction. This fully updated and expanded second edition takes you through the fundamental concepts and methods of D3, the most powerful JavaScript library for expressing data visually in a web browser. Ideal for designers with no coding experience, reporters exploring data journalism, and anyone who wants to visualize and share data, this step-by-step guide will also help you expand your web programming skills by teaching you the basics of HTML, CSS, JavaScript, and SVG. Learn D3 4.x—the latest D3 version—with downloadable code and over 140 examples Create bar charts, scatter plots, pie charts, stacked bar charts, and force-directed graphs Use smooth, animated transitions to show changes in your data Introduce interactivity to help users explore your data Create custom geographic maps with panning, zooming, labels, and tooltips Walk through the creation of a complete visualization project, from start to finish Explore inspiring case studies with nine accomplished designers talking about their D3-based projects

DATA VISUALIZATION WITH PYTHON & JAVASCRIPT. - KYRAN. DALE 2016

Learn Chart.js Helder da Rocha 2019-02-28

Design interactive graphics and visuals for your data-driven applications using the popular open-source Chart.js data visualization library. Key Features Harness the power of JavaScript, HTML, and CSS to create interactive visualizations Display quantitative information efficiently in the form of attractive charts by using Chart.js A practical guide for creating data-driven applications using open-source JavaScript library Book Description Chart.js is a free, open-source data visualization library, maintained by an active community of developers in GitHub, where it rates as the second most popular data visualization library. If you want to quickly create responsive Web-based data visualizations for the Web, Chart.js is a great choice. This book guides the reader through dozens of practical examples, complete with code you can run and modify as you wish. It is a practical hands-on introduction to Chart.js. If you have basic knowledge of HTML, CSS and JavaScript you can learn to create beautiful interactive Web Canvas-based visualizations for your data using Chart.js. This book will help you set up Chart.js in a Web page and show how to create each one of the eight Chart.js chart types. You will also learn how to configure most properties that override Chart's default styles and behaviors. Practical applications of Chart.js are exemplified using real data files obtained from public data portals. You will learn how to load, parse, filter and select the data you wish to display from those files. You will also learn how to create visualizations that reveal patterns in the data. This book is based on Chart.js version 2.7.3 and ES2015 JavaScript. By the end of the book, you will be able to create beautiful, efficient and interactive data visualizations for the Web using Chart.js. What you will learn Learn how to create interactive and responsive data visualizations using Chart.js Learn how to create Canvas-based graphics without Canvas programming Create composite charts and configure animated data updates and transitions Efficiently display quantitative information using bar and line charts, scatterplots, and pie charts Learn how to load, parse, and filter external files in JSON and CSV formats Understand the benefits of using a data visualization framework Who this book is for The ideal target audience of this book includes web developers and designers, data journalists, data scientists and artists who wish to create interactive data visualizations for the Web. Basic knowledge of HTML, CSS, and JavaScript is required. No Canvas

knowledge is necessary.

Data Visualization with JavaScript Stephen A. Thomas 2015

You've got data to communicate. But what kind of visualization do you choose, how do you build it, and how do you ensure that it's up to the demands of the Web? In *Data Visualization with JavaScript*, you'll learn how to use JavaScript, HTML, and CSS to build the most practical visualizations for your data. Step-by-step examples walk you through creating, integrating, and debugging different types of visualizations and will have you building basic visualizations, like bar, line, and scatter graphs, in no time. Then you'll move on to more advanced topics, including how to: Create tree maps, heat maps, network graphs, word clouds, and timelines Map geographic data, and build sparklines and composite charts Add interactivity and retrieve data with AJAX Manage data in the browser and build data-driven web applications Harness the power of the Flotr2, Flot, Chronoline.js, D3.js, Underscore.js, and Backbone.js libraries If you already know your way around building a web page but aren't quite sure how to build a good visualization, *Data Visualization with JavaScript* will help you get your feet wet without throwing you into the deep end. Before you know it, you'll be well on your way to creating simple, powerful data visualizations.

Pro Data Visualization Using R and JavaScript - Tom Barker 2013-06-17

Pro Data Visualization using R and JavaScript makes the R language approachable, and promotes the idea of data gathering and analysis. You'll see how to use R to interrogate and analyze your data, and then use the D3 JavaScript library to format and display that data in an elegant, informative, and interactive way. You will learn how to gather data effectively, and also how to understand the philosophy and implementation of each type of chart, so as to be able to represent the results visually. With the popularity of the R language, the art and practice of creating data visualizations is no longer the preserve of mathematicians, statisticians, or cartographers. As technology leaders, we can gather metrics around what we do and use data visualizations to communicate that information. *Pro Data Visualization using R and JavaScript* combines the power of the R language with the simplicity and familiarity of JavaScript to display clear and informative data visualizations. Gathering and analyzing empirical data is the key to truly understanding anything. We can track operational metrics to quantify the health of our products in production. We can track quality metrics of our projects, and even use our data to identify bad code. Visualizing this data allows anyone to read our analysis and easily get a deep understanding of the story the data tells. What you'll learn A rich understanding of how to gather, and analyze empirical data How to tell a story with data using data visualizations What types of data visualizations are best to use for the story that you want to tell with your data A comprehensive introduction to the R language, covering all the essentials Exploration of how to construct interactive data visualizations using JavaScript and JavaScript libraries Who this book is for Developers at all levels interested in data visualization, beginning to intermediate engineering managers, statisticians, mathematicians, economists and any others interested in data visualization. Table of Contents Techniques for Data Visualization The R Language A Deeper Dive into R Data Visualization with D3 Visualizing Spatial Information from Access Logs (Data Maps) Visualizing Defects over Time (Time Series) Bar Charts Correlation Analysis with Team Dynamics (Scatterplot and Bubble Chart) Balancing Delivery with Quality (Parallel Coordinates Chart)

Interactive Data Visualization for the Web - Scott Murray 2013-03-11

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

Data Visualization with D3.js Cookbook - Nick Qi Zhu 2013-10-24

Packed with practical recipes, this is a step-by-step guide to learning data visualization with D3 with the help of detailed illustrations and code samples. If you are a developer familiar with HTML, CSS, and JavaScript, and you wish to get the most out of D3, then this book is for you. This book can also serve as a desktop quick-reference guide for experienced data visualization developers.

Data Visualization with Python and JavaScript - Kyran Dale 2023-01-31

How do you turn raw, unprocessed, or malformed data into dynamic, interactive web visualizations? In this practical book, author Kyran Dale shows data scientists and analysts—as well as Python and JavaScript developers—how to create the ideal toolchain for the job. By providing engaging examples and stressing hard-earned best practices, this guide teaches you how to leverage the power of best-of-breed Python and

JavaScript libraries. Python provides accessible, powerful, and mature libraries for scraping, cleaning, and processing data. And while JavaScript is the best language when it comes to programming web visualizations, its data processing abilities can't compare with Python's. Together, these two languages are a perfect complement for creating a modern web-visualization toolchain. This book gets you started. You'll learn how to: Obtain data you need programmatically, using scraping tools or web APIs: Requests, Scrapy, BeautifulSoup Clean and process data using Python's heavyweight data processing libraries within the NumPy ecosystem: Jupyter notebooks with pandas+Matplotlib+Seaborn Deliver the data to a browser with static files or by using Flask, the lightweight Python server, and a RESTful API Pick up enough web development skills (HTML, CSS, JS) to get your visualized data on the web Use the data you've mined and refined to create web charts and visualizations with Plotly, D3, Leaflet, and other libraries

[Data Visualization with Python and JavaScript](#) - Kyran Dale 2016-03-25

Python and Javascript are the perfect complement for turning data into rich, interactive web visualizations, in a world that increasingly expects more than a pre-rendered, static image. Developers need to know how to turn raw, unprocessed data, often "dirty" or malformed, into dynamic, interactive web visualizations. Author Kyran Dale teaches you how to leverage the power of best-of-breed Python and Javascript libraries to do so, using engaging examples and stressing hard-earned best-practice. You'll learn how to: Get data programmatically, using scraping tools or web APIs Clean and process data using Python's heavyweight data-processing libraries Deliver data to a browser using a lightweight Python server (Flask) Receive data and use it to create a web visualization, using D3, Canvas, or WebGL

[JavaScript for Data Science](#) - Maya Gans 2020-02-03

JavaScript is the native language of the Internet. Originally created to make web pages more dynamic, it is now used for software projects of all kinds, including scientific visualization and data services. However, most data scientists have little or no experience with JavaScript, and most introductions to the language are written for people who want to build shopping carts rather than share maps of coral reefs. This book will introduce you to JavaScript's power and idiosyncrasies and guide you through the key features of the language and its tools and libraries. The book places equal focus on client- and server-side programming, and shows readers how to create interactive web content, build and test data services, and visualize data in the browser. Topics include: The core features of modern JavaScript Creating templated web pages Making those pages interactive using React Data visualization using Vega-Lite Using Data-Forge to wrangle tabular data Building a data service with Express Unit testing with Mocha All of the material is covered by the Creative Commons Attribution-Noncommercial 4.0 International license (CC-BY-NC-4.0) and is included in the book's companion website at <http://js4ds.org> . Maya Gans is a freelance data scientist and front-end developer by way of quantitative biology. Toby Hodges is a bioinformatician turned community coordinator who works at the European Molecular Biology Laboratory. Greg Wilson co-founded Software Carpentry, and is now part of the education team at RStudio

Interactive Dashboards and Data Apps with Plotly and Dash - Elias Dabbas 2021-05-21

Learn how to build web-based and mobile-friendly analytic apps and interactive dashboards with Python Key Features: Develop data apps and dashboards without any knowledge of JavaScript Map different types of data such as integers, floats, and dates to bar charts, scatter plots, and more Create controls and visual elements with multiple inputs and outputs and add functionality to the app as per your requirements Book Description: With Plotly's Dash framework, it is now easier than ever for Python programmers to develop complete data apps and interactive dashboards. Dash apps can be used by a non-technical audience, and this will make data analysis accessible to a much wider group of people. This book will help you to explore the functionalities of Dash for visualizing data in different ways and getting the most out of it. The book starts with an overview of the Dash ecosystem, its main packages, and the third-party packages crucial for structuring and building different parts of your apps. You'll learn how to create a basic Dash app and add different features to it. Next, you'll integrate controls such as dropdowns, checkboxes, sliders, date pickers, and more in the app and then link them to charts and other outputs. Depending on the data you are visualizing, you'll also add several types of charts, including scatter plots, line plots, bar charts, histograms, and maps, as well as explore the options available for customizing them. By the end of this book, you'll have developed the skills you need to create and deploy an interactive dashboard, handle complexities and code

refactoring, and understand the process of improving your application. What You Will Learn: Find out how to run a fully interactive and easy-to-use app Convert your charts to various formats including images and HTML files Use Plotly Express and the grammar of graphics for easily mapping data to various visual attributes Create different chart types, such as bar charts, scatter plots, histograms, maps, and more Expand your app by creating dynamic pages that generate content based on URLs Implement new callbacks to manage charts based on URLs and vice versa Who this book is for: This Plotly Dash book is for data professionals and data analysts who want to gain a better understanding of their data with the help of different visualizations and dashboards. Basic to intermediate-level knowledge of the Python programming language will help you to grasp the concepts covered in this book more effectively.

Python Data Science Handbook - Jake VanderPlas 2016-11-21

For many researchers, Python is a first-class tool mainly because of its libraries for storing, manipulating, and gaining insight from data. Several resources exist for individual pieces of this data science stack, but only with the Python Data Science Handbook do you get them all—IPython, NumPy, Pandas, Matplotlib, Scikit-Learn, and other related tools. Working scientists and data crunchers familiar with reading and writing Python code will find this comprehensive desk reference ideal for tackling day-to-day issues: manipulating, transforming, and cleaning data; visualizing different types of data; and using data to build statistical or machine learning models. Quite simply, this is the must-have reference for scientific computing in Python. With this handbook, you'll learn how to use: IPython and Jupyter: provide computational environments for data scientists using Python NumPy: includes the ndarray for efficient storage and manipulation of dense data arrays in Python Pandas: features the DataFrame for efficient storage and manipulation of labeled/columnar data in Python Matplotlib: includes capabilities for a flexible range of data visualizations in Python Scikit-Learn: for efficient and clean Python implementations of the most important and established machine learning algorithms

IPython Interactive Computing and Visualization Cookbook - Cyrille Rossant 2014-09-25

Intended to anyone interested in numerical computing and data science: students, researchers, teachers, engineers, analysts, hobbyists... Basic knowledge of Python/NumPy is recommended. Some skills in mathematics will help you understand the theory behind the computational methods.

[Data Visualization Made Simple](#) - Kristen Sosulski 2018-09-27

Data Visualization Made Simple is a practical guide to the fundamentals, strategies, and real-world cases for data visualization, an essential skill required in today's information-rich world. With foundations rooted in statistics, psychology, and computer science, data visualization offers practitioners in almost every field a coherent way to share findings from original research, big data, learning analytics, and more. In nine appealing chapters, the book: examines the role of data graphics in decision-making, sharing information, sparking discussions, and inspiring future research; scrutinizes data graphics, deliberates on the messages they convey, and looks at options for design visualization; and includes cases and interviews to provide a contemporary view of how data graphics are used by professionals across industries Both novices and seasoned designers in education, business, and other areas can use this book's effective, linear process to develop data visualization literacy and promote exploratory, inquiry-based approaches to visualization problems.

Data Visualization with Python and JavaScript - Kyran Dale 2016-06-30

Learn how to turn raw data into rich, interactive web visualizations with the powerful combination of Python and JavaScript. With this hands-on guide, author Kyran Dale teaches you how build a basic dataviz toolchain with best-of-breed Python and JavaScript libraries—including Scrapy, Matplotlib, Pandas, Flask, and D3—for crafting engaging, browser-based visualizations. As a working example, throughout the book Dale walks you through transforming Wikipedia's table-based list of Nobel Prize winners into an interactive visualization. You'll examine steps along the entire toolchain, from scraping, cleaning, exploring, and delivering data to building the visualization with JavaScript's D3 library. If you're ready to create your own web-based data visualizations—and know either Python or JavaScript—this is the book for you. Learn how to manipulate data with Python Understand the commonalities between Python and JavaScript Extract information from websites by using Python's web-scraping tools, BeautifulSoup and Scrapy Clean and explore data with Python's Pandas, Matplotlib, and Numpy libraries Serve data and create RESTful web

APIs with Python's Flask framework Create engaging, interactive web visualizations with JavaScript's D3 library

Distributed Systems with Node.js - Thomas Hunter II 2020-11-04

Many companies, from startups to Fortune 500 companies alike, use Node.js to build performant backend services. And engineers love Node.js for its approachable API and familiar syntax. Backed by the world's largest package repository, Node's enterprise foothold is only expected to grow. In this hands-on guide, author Thomas Hunter II proves that Node.js is just as capable as traditional enterprise platforms for building services that are observable, scalable, and resilient. Intermediate to advanced Node.js developers will find themselves integrating application code with a breadth of tooling from each layer of a modern service stack. Learn why running redundant copies of the same Node.js service is necessary Know which protocol to choose, depending on the situation Fine-tune your application containers for use in production Track down errors in a distributed setting to determine which service is at fault Simplify app code and increase performance by offloading work to a reverse proxy Build dashboards to monitor service health and throughput Find out why so many different tools are required when operating in an enterprise environment

Interactive Dashboards and Data Apps with Plotly and Dash - Ed Dabbas 2021-05-21

Build web-based, mobile-friendly analytic apps and interactive dashboards with Python Key

FeaturesDevelop data apps and dashboards without any knowledge of JavaScriptMap different types of data such as integers, floats, and dates to bar charts, scatter plots, and moreCreate controls and visual elements with multiple inputs and outputs and add functionality to the app as per your requirementsBook Description Plotly's Dash framework is a life-saver for Python developers who want to develop complete data apps and interactive dashboards without JavaScript, but you'll need to have the right guide to make sure you're getting the most of it. With the help of this book, you'll be able to explore the functionalities of Dash for visualizing data in different ways. Interactive Dashboards and Data Apps with Plotly and Dash will first give you an overview of the Dash ecosystem, its main packages, and the third-party packages crucial for structuring and building different parts of your apps. You'll learn how to create a basic Dash app and add different features to it. Next, you'll integrate controls such as dropdowns, checkboxes, sliders, date pickers, and more in the app and then link them to charts and other outputs. Depending on the data you are visualizing, you'll also add several types of charts, including scatter plots, line plots, bar charts, histograms, and maps, as well as explore the options available for customizing them. By the end of this book, you'll have developed the skills you need to create and deploy an interactive dashboard, handle complexities and code refactoring, and understand the process of improving your application. What you will learnFind out how to run a fully interactive and easy-to-use appConvert your charts to various formats including images and HTML filesUse Plotly Express and the grammar of graphics for easily mapping data to various visual attributesCreate different chart types, such as bar charts, scatter plots, histograms, maps, and moreExpand your app by creating dynamic pages that generate content based on URLsImplement new callbacks to manage charts based on URLs and vice versaWho this book is for This Plotly Dash book is for data professionals and data analysts who want to gain a better understanding of their data with the help of different visualizations and dashboards - and without having to use JS. Basic knowledge of the Python programming language and HTML will help you to grasp the concepts covered in this book more effectively, but it's not a prerequisite.

Building Data-Driven Applications with Danfo.js - Odegua 2021-09-24

Get hands-on with building data-driven applications using Danfo.js in combination with other data analysis tools and techniques Key FeaturesBuild microservices to perform data transformation and ML model serving in JavaScriptExplore what Danfo.js is and how it helps with data analysis and data visualizationCombine Danfo.js and TensorFlow.js for machine learningBook Description Most data analysts use Python and pandas for data processing for the convenience and performance these libraries provide. However, JavaScript developers have always wanted to use machine learning in the browser as well. This book focuses on how Danfo.js brings data processing, analysis, and ML tools to JavaScript developers and how to make the most of this library to build data-driven applications. Starting with an overview of modern JavaScript, you'll cover data analysis and transformation with Danfo.js and Dnotebook. The book then shows you how to load different datasets, combine and analyze them by performing operations such as handling

missing values and string manipulations. You'll also get to grips with data plotting, visualization, aggregation, and group operations by combining Danfo.js with Plotly. As you advance, you'll create a no-code data analysis and handling system and create-react-app, react-table, react-chart, Draggable.js, and tailwindcss, and understand how to use TensorFlow.js and Danfo.js to build a recommendation system. Finally, you'll build a Twitter analytics dashboard powered by Danfo.js, Next.js, node-nlp, and Twit.js. By the end of this app development book, you'll be able to build and embed data analytics, visualization, and ML capabilities into any JavaScript app in server-side Node.js or the browser. What you will learnPerform data experimentation and analysis with Danfo.js and DnotebookBuild machine learning applications using Danfo.js integrated with TensorFlow.jsConnect Danfo.js with popular database applications to aid data analysisCreate a no-code data analysis and handling system using internal librariesDevelop a recommendation system with Danfo.js and TensorFlow.jsBuild a Twitter analytics dashboard for sentiment analysis and other types of data insightsWho this book is for This book is for data analysts, data scientists, and JavaScript developers who want to create data-driven applications in the JavaScript/Node.js environment. Intermediate-level knowledge of JavaScript programming and data science using pandas is expected.

Interactive Data Visualization with Python - Abha Belorkar 2020-04-14

Create your own clear and impactful interactive data visualizations with the powerful data visualization libraries of Python Key FeaturesStudy and use Python interactive libraries, such as Bokeh and PlotlyExplore different visualization principles and understand when to use which oneCreate interactive data visualizations with real-world dataBook Description With so much data being continuously generated, developers, who can present data as impactful and interesting visualizations, are always in demand. Interactive Data Visualization with Python sharpens your data exploration skills, tells you everything there is to know about interactive data visualization in Python. You'll begin by learning how to draw various plots with Matplotlib and Seaborn, the non-interactive data visualization libraries. You'll study different types of visualizations, compare them, and find out how to select a particular type of visualization to suit your requirements. After you get a hang of the various non-interactive visualization libraries, you'll learn the principles of intuitive and persuasive data visualization, and use Bokeh and Plotly to transform your visuals into strong stories. You'll also gain insight into how interactive data and model visualization can optimize the performance of a regression model. By the end of the course, you'll have a new skill set that'll make you the go-to person for transforming data visualizations into engaging and interesting stories. What you will learnExplore and apply different interactive data visualization techniquesManipulate plotting parameters and styles to create appealing plotsCustomize data visualization for different audiencesDesign data visualizations using interactive librariesUse Matplotlib, Seaborn, Altair and Bokeh for drawing appealing plotsCustomize data visualization for different scenariosWho this book is for This book intends to provide a solid training ground for Python developers, data analysts and data scientists to enable them to present critical data insights in a way that best captures the user's attention and imagination. It serves as a simple step-by-step guide that demonstrates the different types and components of visualization, the principles, and techniques of effective interactivity, as well as common pitfalls to avoid when creating interactive data visualizations. Students should have an intermediate level of competency in writing Python code, as well as some familiarity with using libraries such as pandas.

Learn D3.js - Helder da Rocha 2019-05-03

Explore the power of D3.js 5 and its integration with web technologies for building rich and interactive data visualization solutions Key FeaturesExplore the latest D3.js 5 for creating charts, plots, and force-directed graphicsPractical guide for creating interactive graphics and data-driven apps with JavaScriptBuild Real-time visualization and transition on web using SVG with D3.jsBook Description This book is a practical hands-on introduction to D3 (Data-driven Documents): the most popular open-source JavaScript library for creating interactive web-based data visualizations. Based entirely on open web standards, D3 provides an integrated collection of tools for efficiently binding data to graphical elements. If you have basic knowledge of HTML, CSS and JavaScript you can use D3.js to create beautiful interactive web-based data visualizations. D3 is not a charting library. It doesn't contain any pre-defined chart types, but can be used to create whatever visual representations of data you can imagine. The goal of this book is to introduce D3

and provide a learning path so that you obtain a solid understanding of its fundamental concepts, learn to use most of its modules and functions, and gain enough experience to create your own D3 visualizations. You will learn how to create bar, line, pie and scatter charts, trees, dendograms, treemaps, circle packs, chord/ribbon diagrams, sankey diagrams, animated network diagrams, and maps using different geographical projections. Fundamental concepts are explained in each chapter and then applied to a larger example in step-by-step tutorials, complete with full code, from hundreds of examples you can download and run. This book covers D3 version 5 and is based on ES2015 JavaScript. What you will learn Learn to use D3.js version 5 and web standards to create beautiful interactive data-driven visualizations for the web Bind data to DOM elements, applying different scales, color schemes and configuring smooth animated transitions for data updates Generate data structures and layouts for many popular chart formats Apply interactive behaviors to any chart Create thematic maps based on GIS data using different geographical projections with interactive behaviors Load, parse and transform data from JSON and CSV formats Who this book is for The book is intended for web developers, web designers, data scientists, artists, and any developer who wish to create interactive data visualization for the Web using D3. The book assumes basic knowledge of HTML, CSS, and JavaScript.

Learning Python Data Visualization - Chad Adams 2014-08-22

If you are a Python novice or an experienced developer and want to explore data visualization libraries, then this is the book for you. No prior charting or graphics experience is needed.

Visualizing Graph Data - Corey Lanum 2016-11-23

Summary Visualizing Graph Data teaches you not only how to build graph data structures, but also how to

create your own dynamic and interactive visualizations using a variety of tools. This book is loaded with fascinating examples and case studies to show you the real-world value of graph visualizations. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology Assume you are doing a great job collecting data about your customers and products. Are you able to turn your rich data into important insight? Complex relationships in large data sets can be difficult to recognize. Visualizing these connections as graphs makes it possible to see the patterns, so you can find meaning in an otherwise over-whelming sea of facts. About the Book Visualizing Graph Data teaches you how to understand graph data, build graph data structures, and create meaningful visualizations. This engaging book gently introduces graph data visualization through fascinating examples and compelling case studies. You'll discover simple, but effective, techniques to model your data, handle big data, and depict temporal and spatial data. By the end, you'll have a conceptual foundation as well as the practical skills to explore your own data with confidence. What's Inside Techniques for creating effective visualizations Examples using the Gephi and KeyLines visualization packages Real-world case studies About the Reader No prior experience with graph data is required. About the Author Corey Lanum has decades of experience building visualization and analysis applications for companies and government agencies around the globe. Table of Contents PART 1 - GRAPH VISUALIZATION BASICS Getting to know graph visualization Case studies An introduction to Gephi and KeyLines PART 2 VISUALIZE YOUR OWN DATA Data modeling How to build graph visualizations Creating interactive visualizations How to organize a chart Big data: using graphs when there's too much data Dynamic graphs: how to show data over time Graphs on maps: the where of graph visualization