Data Visualization With Python And Javascript

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.
Quickly start programming with Python 3 for data visualization with this step-by-step, detailed guide. This book's programming-friendly approach using libraries such as leather, NumPy, Matplotlib, and Pandas will serve as a template for business and scientific visualizations. You'll begin by installing Python 3, see how to work in Jupyter notebook, and explore Leather, Python's popular data visualization charting library. You'll also be introduced to the scientific Python 3 ecosystem and work with the basics of NumPy, an integral part of that ecosystem. Later chapters are focused on various NumPy routines along with getting started with Scientific Data visualization using matplotlib. You'll review the visualization of 3D data using graphs and networks and finish up by looking at data visualization with Pandas, including the visualization of COVID-19 data sets. The code examples are tested on popular platforms like Ubuntu, Windows, and Raspberry Pi OS. With Practical Python Data Visualization you'll master the core concepts of data visualization with Pandas and the Jupyter notebook interface. What You'll Learn Review practical aspects of Python Data Visualization with programming-friendly abstractions Install Python 3 and Jupyter on multiple platforms including Windows, Raspberry Pi, and Ubuntu Visualize COVID-19 data sets with

Pandas Who This Book Is For Data Science enthusiasts and professionals, Business analysts and managers, software engineers, data engineers.

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

A practical hands-on guide which focuses on interactive programming, numerical computing, and data analysis with IPython.This book is for Python developers who use

Python as a scripting language or for software development, and are interested in learning IPython for increasing their productivity during interactive sessions in the console. Knowledge of Python is required, whereas no knowledge of IPython is necessary.

Get to grips with pandas—a versatile and high-performance Python library for data manipulation, analysis, and discovery Key Features Perform efficient data analysis and manipulation tasks using pandas Apply pandas to different real-world domains using step-by-step demonstrations Get accustomed to using pandas as an effective data exploration tool Book Description Data analysis has become a necessary skill in a variety of positions where knowing how to work with data and extract insights can generate significant value. Hands-On Data Analysis with Pandas will show you how to analyze your data, get started with machine learning, and work effectively with Python libraries often used for data science, such as pandas, NumPy, matplotlib, seaborn, and scikit-learn. Using real-world datasets, you will learn how to use the powerful pandas library to perform data wrangling to reshape, clean, and aggregate your data. Then, you will learn how to conduct exploratory data analysis by calculating summary statistics and visualizing the data to find patterns. In the concluding chapters, you will explore some applications of anomaly detection, regression, clustering, and classification, using scikit-learn, to make predictions based on past data. By the end of this book, you will be equipped with the skills you need to use pandas to ensure the veracity of your data,

visualize it for effective decision-making, and reliably reproduce analyses across multiple datasets. What you will learn Understand how data analysts and scientists gather and analyze data Perform data analysis and data wrangling in Python Combine, group, and aggregate data from multiple sources Create data visualizations with pandas, matplotlib, and seaborn Apply machine learning (ML) algorithms to identify patterns and make predictions Use Python data science libraries to analyze real-world datasets Use pandas to solve common data representation and analysis problems Build Python scripts, modules, and packages for reusable analysis code Who this book is for This book is for data analysts, data science beginners, and Python developers who want to explore each stage of data analysis and scientific computing using a wide range of datasets. You will also find this book useful if you are a data scientist who is looking to implement pandas in machine learning. Working knowledge of Python programming language will be beneficial.

Create your own clear and impactful interactive data visualizations with the powerful data visualization libraries of Python Key Features Study and use Python interactive libraries, such as Bokeh and Plotly Explore different visualization principles and understand when to use which one Create interactive data visualizations with real-world data Book 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 learn Explore and apply different static and interactive data visualization techniques Make effective use of plot types and features from the Matplotlib, Seaborn, Altair, Bokeh, and Plotly libraries Master the art of selecting appropriate plotting parameters and styles to create attractive plots Choose meaningful and informative ways to present your stories through data Customize data visualization for specific scenarios, contexts, and audiences Avoid common errors and slip-ups in visualizing data Who 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.

Create your own clear and impactful interactive data visualizations with the powerful data visualization libraries of Python Key Features Study and use Python interactive libraries, such as Bokeh and Plotly Explore different visualization principles and understand when to use which one Create interactive data visualizations with real-world data Book 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 learn Explore and apply different interactive data visualization techniques Manipulate plotting parameters and styles to create appealing plots Customize data visualization for different audiences Design data visualizations using interactive libraries Use Matplotlib, Seaborn, Altair and Bokeh for drawing appealing plots Customize data visualization for different scenarios Who 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. 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

Over 70 recipes to get you started with popular Python libraries based on the principal concepts of data visualizationAbout 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 needsWho This Book Is ForIf 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 onlineIn DetailPython 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 approachA 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.

We are visual animals. But before we can see the world in its true splendor, our brains, just like our computers, have to sort and organize raw data, and then transform that data to produce new images of the world. Beginning Python Visualization: Crafting Visual Transformation Scripts, Second Edition discusses turning many types of data sources, big and small, into useful visual data. And, you will learn Python as part of the bargain. In this second edition you'll learn about Spyder, which is a Python IDE with MATLAB® -like features. Here and throughout the book, you'll get detailed exposure to the growing IPython project for interactive visualization. In addition, you'll learn about the changes in NumPy and Scipy that have occurred since the first edition. Along the way, you'll get many pointers and a few visual examples. As part of this update, you'll learn about matplotlib in detail; this includes creating 3D graphs and using the basemap package that allows you to render geographical maps. Finally, you'll learn about image processing, annotating, and filtering, as well as how to make movies using Python. This includes learning how to edit/open video files and how to create your own movie, all with Python scripts. Today's big data and computational scientists, financial

analysts/engineers and web developers – like you - will find this updated book very relevant.

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.

Are you a budding data scientist or aspire to be one someday? Have you ever wondered about all the data that is constantly in motion around the world? Does it surprise you when Netflix gives you suggestions for your next movie and it is very close to your taste in movies? Would you like to know more about data and how it is used regularly to influence every action you take? Do you want to know how businesses with a turnover in millions make critical decisions to make or break their business? Do you wonder how humans can process huge data for their decision-making? All this can be

achieved through data in the form of visual representations. If you are curious to know the answers to all these questions, then this is the right book for you. This book will introduce how data is converted into visuals for better interpretation using the programming language known as Python. If you are well versed with Python, you will easily transition into leveraging the tools available to you in Python to create appealing data visuals from a raw set of data. You will also learn to create your own machine learning models in Python to create data visualizations that will ease decision-making for you or your organization. If you are looking to launch yourself in the world of data science and looking to use Python as the most used tool in your toolkit, this book will serve as the perfect launchpad. This book is designed to help individuals with basic Python programming knowledge to learn something new concerning the use of Python data visualization libraries in the data science domain. The tools in this book will help you get a first impression of data science and how Python can be used extensively to create beautiful visuals to turn raw data into stories. The book will take you through: The need for data visualization today The concepts and techniques of data visualization The various tools available to achieve data visualization Data visualization libraries in Python The Pareto Chart Regression and Classification using Python This book has been designed for you to understand data visualization using Python. There are step by step guides and images with code snippets throughout the book to help you get your hands dirty by creating your own data visuals. So, here's hoping that this book helps

you find your appetite to become a data scientist with a mystery in presenting data through effective visualizations someday. Click the Buy Now button to get started! 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.

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

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.

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.

Leverage the power of Matplotlib to visualize and understand your data more effectively Key Features Perform effective data visualization with Matplotlib and get actionable insights from your data Design attractive graphs, charts, and 2D plots, and deploy them to the web Get the most out of Matplotlib in this practical guide with updated code and examples Book Description Python is a general-purpose programming language increasingly being used for data analysis and visualization. Matplotlib is a popular data visualization package in Python used to design effective plots and graphs. This is a practical, hands-on resource to help you visualize data with Python using the Matplotlib

library. Matplotlib for Python Developers, Second Edition shows you how to create attractive graphs, charts, and plots using Matplotlib. You will also get a quick introduction to third-party packages, Seaborn, Pandas, Basemap, and Geopandas, and learn how to use them with Matplotlib. After that, you'll embed and customize your plots in third-party tools such as GTK+3, Qt 5, and wxWidgets. You'll also be able to tweak the look and feel of your visualization with the help of practical examples provided in this book. Further on, you'll explore Matplotlib 2.1.x on the web, from a cloud-based platform using third-party packages such as Django. Finally, you will integrate interactive, real-time visualization techniques into your current workflow with the help of practical real-world examples. By the end of this book, you'll be thoroughly comfortable with using the popular Python data visualization library Matplotlib 2.1.x and leveraging its power to build attractive, insightful, and powerful visualizations. What you will learn Create 2D and 3D static plots such as bar charts, heat maps, and scatter plots Get acquainted with GTK+3, Qt5, and wxWidgets to understand the UI backend of Matplotlib Develop advanced static plots with third-party packages such as Pandas, GeoPandas, and Seaborn Create interactive plots with real-time updates Develop web-based, Matplotlib-powered graph visualizations with third-party packages such as Django Write data visualization code that is readily expandable on the cloud platform Who this book is for This book is essentially for anyone who wants to create intuitive data visualizations using the Matplotlib library. If you're a data scientist or analyst and

wish to create attractive visualizations using Python, you'll find this book useful. Some knowledge of Python programming is all you need to get started.

Build attractive, insightful, and powerful visualizations to gain quality insights from your data Key Features Master Matplotlib for data visualization Customize basic plots to make and deploy figures in cloud environments Explore recipes to design various data visualizations from simple bar charts to advanced 3D plots Book Description Matplotlib provides a large library of customizable plots, along with a comprehensive set of backends. Matplotlib 3.0 Cookbook is your hands-on guide to exploring the world of Matplotlib, and covers the most effective plotting packages for Python 3.7. With the help of this cookbook, you'll be able to tackle any problem you might come across while designing attractive, insightful data visualizations. With the help of over 150 recipes, you'll learn how to develop plots related to business intelligence, data science, and engineering disciplines with highly detailed visualizations. Once you've familiarized yourself with the fundamentals, you'll move on to developing professional dashboards with a wide variety of graphs and sophisticated grid layouts in 2D and 3D. You'll annotate and add rich text to the plots, enabling the creation of a business storyline. In addition to this, you'll learn how to save figures and animations in various formats for downstream deployment, followed by extending the functionality offered by various internal and third-party toolkits, such as axisartist, axes_grid, Cartopy, and Seaborn. By the end of this book, you'll be able to create high-quality customized plots and deploy

them on the web and on supported GUI applications such as Tkinter, Qt 5, and wxPython by implementing real-world use cases and examples. What you will learn Develop simple to advanced data visualizations in Matplotlib Use the pyplot API to quickly develop and deploy different plots Use object-oriented APIs for maximum flexibility with the customization of figures Develop interactive plots with animation and widgets Use maps for geographical plotting Enrich your visualizations using embedded texts and mathematical expressions Embed Matplotlib plots into other GUIs used for developing applications Use toolkits such as axisartist, axes_grid1, and cartopy to extend the base functionality of Matplotlib Who this book is for The Matplotlib 3.0 Cookbook is for you if you are a data analyst, data scientist, or Python developer looking for quick recipes for a multitude of visualizations. This book is also for those who want to build variations of interactive visualizations.

Interactive Data Visualization with Python sharpens your data exploration skills, tells you everything there is to know about interactive data visualization in Python, and most importantly, helps you make your storytelling more intuitive and persuasive.

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

Explore a modern approach to visualizing data with Python and transform large real-world datasets into expressive visual graphics using this beginner-friendly workshop Key Features Discover the essential tools and methods of data visualization Learn to use standard Python plotting libraries such as Matplotlib and Seaborn Gain insights into the visualization techniques of big companies Book Description Do you want to transform data into captivating images? Do you want to make it easy for your audience to process and understand the patterns, trends, and relationships hidden within your data? The Data Visualization Workshop will guide you through the world of data visualization and help you to unlock simple secrets for transforming data into meaningful visuals with the help of exciting exercises and activities. Starting with an introduction to data visualization, this book shows you how to first prepare raw data for

visualization using NumPy and pandas operations. As you progress, you'll use plotting techniques, such as comparison and distribution, to identify relationships and similarities between datasets. You'll then work through practical exercises to simplify the process of creating visualizations using Python plotting libraries such as Matplotlib and Seaborn. If you've ever wondered how popular companies like Uber and Airbnb use geoplotlib for geographical visualizations, this book has got you covered, helping you analyze and understand the process effectively. Finally, you'll use the Bokeh library to create dynamic visualizations that can be integrated into any web page. By the end of this workshop, you'll have learned how to present engaging mission-critical insights by creating impactful visualizations with real-world data. What you will learn Understand the importance of data visualization in data science Implement NumPy and pandas operations on real-life datasets Create captivating data visualizations using plotting libraries Use advanced techniques to plot geospatial data on a map Integrate interactive visualizations to a webpage Visualize stock prices with Bokeh and analyze Airbnb data with Matplotlib Who this book is for The Data Visualization Workshop is for beginners who want to learn data visualization, as well as developers and data scientists who are looking to enrich their practical data science skills. Prior knowledge of data analytics, data science, and visualization is not mandatory. Knowledge of Python basics and high-school-level math will help you grasp the concepts covered in this data visualization book more quickly and effectively.

An accessible primer on how to create effective graphics from data This book provides students and researchers a hands-on introduction to the principles and practice of data visualization. It explains what makes some graphs succeed while others fail, how to make high-quality figures from data using powerful and reproducible methods, and how to think about data visualization in an honest and effective way. Data Visualization builds the reader's expertise in ggplot2, a versatile visualization library for the R programming language. Through a series of worked examples, this accessible primer then demonstrates how to create plots piece by piece, beginning with summaries of single variables and moving on to more complex graphics. Topics include plotting continuous and categorical variables; layering information on graphics; producing effective "small multiple" plots; grouping, summarizing, and transforming data for plotting; creating maps; working with the output of statistical models; and refining plots to make them more comprehensible. Effective graphics are essential to communicating ideas and a great way to better understand data. This book provides the practical skills students and practitioners need to visualize quantitative data and get the most out of their research findings. Provides hands-on instruction using R and ggplot2 Shows how the "tidyverse" of data analysis tools makes working with R easier and more consistent Includes a library of data sets, code, and functions

Python for Everybody is designed to introduce students to programming and software development through the lens of exploring data. You can think of the Python

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

related to data visualization using PythonKey Features* Detailed introductions to several data visualization libraries such as Matplotlib and Seaborn* Guided instructions to more advanced data visualization skills such as 3D plotting or interactive visualization* Hands-on projects for interactive practice designed to cement your new skills in practical memoryBook DescriptionData science and data visualization are two different but interrelated concepts. Data science refers to the science of extracting and exploring data to find patterns that can be used for decision making at different levels. Data visualization can be considered a subdomain of data science. You visualize data with graphs and tables to find out which data is most significant and help identify meaningful patterns.This book is dedicated to data visualization and explains how to perform data visualization on different 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 some of the most famous libraries for data visualization, such as Pandas, NumPy, Matplotlib,

and Seaborn.You will learn all about Python in three modules--plotting with Matplotlib, 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. By the end of this course, you will have the knowledge and skills required to visualize data with Python all on your own.The code bundle for this course is available at https://www.aispublishing.net/book-data-visualizationWhat you will learn* Begin visualizing data with Matplotlib* Explore the Python Seaborn library for advanced plotting* Analyze data with the Pandas library* Expand your visualization skills with Pandas* Plot in three dimensions with Matplotlib* Practice interactive data visualization with Bokeh and Plotly* Complete several hands-on projectsWho this book is forThis book is written with one goal in mind--to help beginners overcome their initial obstacles in learning data visualization using Python. This book aims to isolate the different concepts so that beginners can gradually gain competency in the fundamentals of Python before working on a project. As such, no prior experience is required.

Effective visualization is the best way to communicate information from the increasingly large and complex datasets in the natural and social sciences. But with the increasing power of visualization software today, scientists, engineers, and business analysts often have to navigate a bewildering array of visualization

choices and options. This practical book takes you through many commonly encountered visualization problems, and it provides guidelines on how to turn large datasets into clear and compelling figures. What visualization type is best for the story you want to tell? How do you make informative figures that are visually pleasing? Author Claus O. Wilke teaches you the elements most critical to successful data visualization. Explore the basic concepts of color as a tool to highlight, distinguish, or represent a value Understand the importance of redundant coding to ensure you provide key information in multiple ways Use the book's visualizations directory, a graphical guide to commonly used types of data visualizations Get extensive examples of good and bad figures Learn how to use figures in a document or report and how employ them effectively to tell a compelling story

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.

Data Visualization with Python and JavaScriptO'Reilly Media

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

Get started with Python for data analysis and numerical computing in the Jupyter notebook About This Book Learn the basics of Python in the Jupyter Notebook Analyze and visualize data with pandas, NumPy, matplotlib, and seaborn Perform highly-efficient numerical computations with Numba, Cython, and ipyparallel Who This Book Is For This book targets students, teachers, researchers, engineers, analysts, journalists, hobbyists, and all data enthusiasts who are interested in analyzing and visualizing real-world datasets. If you are new to programming and data analysis, this book is exactly for you. If you're already familiar with another language or analysis software, you will also appreciate this introduction to the Python data analysis platform. Finally, there are more technical topics for advanced readers. No prior experience is required; this book contains everything you need to know. What You Will Learn Install

Anaconda and code in Python in the Jupyter Notebook Load and explore datasets interactively Perform complex data manipulations effectively with pandas Create engaging data visualizations with matplotlib and seaborn Simulate mathematical models with NumPy Visualize and process images interactively in the Jupyter Notebook with scikit-image Accelerate your code with Numba, Cython, and IPython.parallel Extend the Notebook interface with HTML, JavaScript, and D3 In Detail Python is a user-friendly and powerful programming language. IPython offers a convenient interface to the language and its analysis libraries, while the Jupyter Notebook is a rich environment well-adapted to data science and visualization. Together, these open source tools are widely used by beginners and experts around the world, and in a huge variety of fields and endeavors. This book is a beginner-friendly guide to the Python data analysis platform. After an introduction to the Python language, IPython, and the Jupyter Notebook, you will learn how to analyze and visualize data on real-world examples, how to create graphical user interfaces for image processing in the Notebook, and how to perform fast numerical computations for scientific simulations with NumPy, Numba, Cython, and ipyparallel. By the end of this book, you will be able to perform in-depth analyses of all sorts of data. Style and approach This is a hands-on beginner-friendly guide to analyze and visualize

data on real-world examples with Python and the Jupyter Notebook.
This book is a guide for you on how to present data using graphics. The various tools that can be used for presenting data visually have been discussed. The author guides you on how to create various graphics using data in R programming language. The author also guides you on how to present data graphically in Python using Matplotlib and Pandas libraries. Tableau is a graphical user interface tool good for business intelligence. The tool can help its users present their data visually. The author guides you on how to create various graphics to represent your data in Tableau. Microsoft Excel is also a good tool for data analysis and visualization. The author guides you on the various ways to present your data visually in Excel. What is Data Visualization? Data Visualization in R Data Visualization in Python Data Visualization with Tableau Data Visualization in Excel Keywords: data visualisation r, pandas programming, data visualisation python, tableau data, matplotlib python, pandas python, pandas, data visualisation books, data visualisation for dummies, data visualisation excel, data visualization tableau, data visualization a practical introduction, tableau data visualizations.
Learn how to create interactive and visually aesthetic plots using the Bokeh package in Python Key Features A step by step approach to creating interactive

plots with Bokeh Go from installation all the way to deploying your very own Bokeh application Work with a real time datasets to practice and create your very own plots and applications Book Description Adding a layer of interactivity to your plots and converting these plots into applications hold immense value in the field of data science. The standard approach to adding interactivity would be to use paid software such as Tableau, but the Bokeh package in Python offers users a way to create both interactive and visually aesthetic plots for free. This book gets you up to speed with Bokeh - a popular Python library for interactive data visualization. The book starts out by helping you understand how Bokeh works internally and how you can set up and install the package in your local machine. You then use a real world data set which uses stock data from Kaggle to create interactive and visually stunning plots. You will also learn how to leverage Bokeh using some advanced concepts such as plotting with spatial and geo data. Finally you will use all the concepts that you have learned in the previous chapters to create your very own Bokeh application from scratch. By the end of the book you will be able to create your very own Bokeh application. You will have gone through a step by step process that starts with understanding what Bokeh actually is and ends with building your very own Bokeh application filled with interactive and visually aesthetic plots. What you will learn Installing Bokeh and

understanding its key concepts Creating plots using glyphs, the fundamental building blocks of Bokeh Creating plots using different data structures like NumPy and Pandas Using layouts and widgets to visually enhance your plots and add a layer of interactivity Building and hosting applications on the Bokeh server Creating advanced plots using spatial data Who this book is for This book is well suited for data scientists and data analysts who want to perform interactive data visualization on their web browsers using Bokeh. Some exposure to Python programming will be helpful, but prior experience with Bokeh is not required.

While Excel remains ubiquitous in the business world, recent Microsoft feedback forums are full of requests to include Python as an Excel scripting language. In fact, it's the top feature requested. What makes this combination so compelling? In this hands-on guide, Felix Zumstein--creator of xlwings, a popular open source package for automating Excel with Python--shows experienced Excel users how to integrate these two worlds efficiently. Excel has added quite a few new capabilities over the past couple of years, but its automation language, VBA, stopped evolving a long time ago. Many Excel power users have already adopted Python for daily automation tasks. This guide gets you started. Use Python without extensive programming knowledge Get started with modern tools, including Jupyter notebooks and Visual Studio code Use pandas to acquire, clean, and analyze data and replace typical Excel calculations

Automate tedious tasks like consolidation of Excel workbooks and production of Excel reports Use xlwings to build interactive Excel tools that use Python as a calculation engine Connect Excel to databases and CSV files and fetch data from the internet using Python code Use Python as a single tool to replace VBA, Power Query, and Power Pivot

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

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** 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

Enhance your data analysis and predictive modeling skills using popular Python tools Key Features Cover all fundamental libraries for operation and manipulation of Python for data analysis Implement real-world datasets to perform predictive analytics with Python Access modern data analysis techniques and detailed code with scikit-learn and SciPy Book Description Python is one of the most common and popular languages preferred by leading data analysts and statisticians for working with massive datasets and complex data visualizations. Become a Python Data Analyst introduces Python's most essential tools and libraries necessary to work with the data analysis process,

right from preparing data to performing simple statistical analyses and creating meaningful data visualizations. In this book, we will cover Python libraries such as NumPy, pandas, matplotlib, seaborn, SciPy, and scikit-learn, and apply them in practical data analysis and statistics examples. As you make your way through the chapters, you will learn to efficiently use the Jupyter Notebook to operate and manipulate data using NumPy and the pandas library. In the concluding chapters, you will gain experience in building simple predictive models and carrying out statistical computation and analysis using rich Python tools and proven data analysis techniques. By the end of this book, you will have hands-on experience performing data analysis with Python. What you will learn Explore important Python libraries and learn to install Anaconda distribution Understand the basics of NumPy Produce informative and useful visualizations for analyzing data Perform common statistical calculations Build predictive models and understand the principles of predictive analytics Who this book is for Become a Python Data Analyst is for entry-level data analysts, data engineers, and BI professionals who want to make complete use of Python tools for performing efficient data analysis. Prior knowledge of Python programming is necessary to understand the concepts covered in this book

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.

Data Visualization is the presentation of data in graphical format.In this tutorial for beginners, you will learn how to present data graphically with Python, Matplotlib, and Seaborn. If you need a short book to master data vizualisation from scratch, this guide

is for you. Get your copy now!!!Book ObjectivesThis book is an exploration of data visualization in Python programming language. Here are the objectives of the book: To help you understand the need for data visualization and appreciate its power in data analysis. To help you learn the various types of plots that you can create to visualize your data. To help you know the various tools that you can use for data visualization, including basic, specialized and advanced tools. To help you make the right decision in choosing the tool and the kind of plot to use to visualize your data. To help you learn the power of Python in data visualization. To equip you with data visualization skills in Python programming language. To help you learn the various Python libraries that you can use for data visualization. Who this Book is for? The author targets the following groups of people: Anyone who needs to know the need for data visualization in an organization. Any individual who needs to know the various tools they can use for data visualization. Any individual who needs to know the various types of graphics they can use to represent their data and how to interpret the graphics. Anybody who needs to learn data visualization in Python using various libraries such as Pandas, Matplotlib, Seaborn and Folium. Anyone who needs to learn how to visualize different types of data including textual, numerical and geospatial data. RequirementsThe author expects you to have a computer installed with an operating system such as Linux, Windows or Mac OS X. What is inside the book? BASICS OF DATA VISUALIZATION BASIC AND SPECIALIZED DATA VISUALIZATION TOOLS ADVANCED VISUALIZATIONS

TOOLSEXPLORING THE LIBRARIES DATA VISUALIZATION WITH MATPLOTLIBDATA VISUALIZATION WITH PANDAS DATA VISUALIZATION WITH SEABORN CREATING MAPS AND VISUALIZING GEOSPATIAL DATA The author has discussed everything related to data visualization. You are first familiarized with the fundamentals of data visualization to help you know what it is and why it is of importance to any organization. The author has then discussed the various types of tools that can be used for data visualization. These tools include the basic, specialized and advanced ones. Practically, the author focuses on how to visualize data in the Python programming language. The process of plotting different types of data using different types of plots has been discussed. You will learn how to plot textual, numerical and geospatial data in Python using different libraries such as Pandas, Matplotlib, Seaborn and Folium. Python codes have been provided alongside images of the expected outputs and the corresponding code descriptions.