Read Book Lean Python Learn Just Enough Python To Build Useful Tools Pdf For Free

Lean Python *Just Enough Python* **Data Science from Scratch** Data Science with Jupyter **Data Science with Jupyter** Learn Enough Python to Be Dangerous **Data Wrangling with Python** *Integer Linear Programming in Computational and Systems Biology* Just Enough Jeeves: Right Ho, Jeeves; Joy in the Morning; Very Good, Jeeves *Python Basics* **Monty Python, Shakespeare and English Renaissance Drama** *Intuitive Python Programming Machine Learning* Data Wrangling with Python **Numerical Methods in Engineering with Python 3 Just Enough R! Python Programming On Win32 SPSS For Dummies Sage for Undergraduates** *Bioinformatics with Python Cookbook* **scikit-learn : Machine Learning Simplified** Handbook of Regression Modeling in People Analytics *Python and XML* **Learn Python in One Day and Learn It Well (2nd Edition)** *Learning Python Scikit-learn* **Python for Machine Learning** *Beginning Samsung ARTIK* **Python in a Nutshell** Ruby on Rails Tutorial **Exploratory Data Analysis with Pandas and Python 3.x** Yunnan Worms Valley **If You Like Monty Python... Introducing Python Mastering Object-Oriented Python** *Understanding the Digital World* Text Mining and Visualization Monty Python and Philosophy **Foundations of Agile Python Development Hello! Python**

Integer linear programming (ILP) is a versatile modeling and optimization technique that is increasingly used in non-traditional ways in biology, with the potential to transform biological computation. However, few biologists know about it. This how-to and why-do text introduces ILP through the lens of computational and systems biology. It uses in-depth examples from genomics, phylogenetics, RNA, protein folding, network analysis, cancer, ecology, co-evolution, DNA sequencing, sequence analysis, pedigree and sibling inference, haplotyping, and more, to establish the power of ILP. This book aims to teach the logic of modeling and solving problems with ILP, and to teach the practical 'work flow' involved in using ILP in biology. Written for a wide audience, with no biological or computational prerequisites, this book is appropriate for entry-level and advanced courses aimed at biological and computational students, and as a source for specialists. Numerous exercises and accompanying software

(in Python and Perl) demonstrate the concepts. How do you take your data analysis skills beyond Excel to the next level? By learning just enough Python to get stuff done. This hands-on guide shows non-programmers like you how to process information that’s initially too messy or difficult to access. You don't need to know a thing about the Python programming language to get started. Through various step-by-step exercises, you’ll learn how to acquire, clean, analyze, and present data efficiently. You’ll also discover how to automate your data process, schedule file- editing and clean-up tasks, process larger datasets, and create compelling stories with data you obtain. Quickly learn basic Python syntax, data types, and language concepts Work with both machine-readable and human-consumable data Scrape websites and APIs to find a bounty of useful information Clean and format data to eliminate duplicates and errors in your datasets Learn when to standardize data and when to test and script data cleanup Explore and analyze your datasets with new Python libraries and techniques Use Python solutions to automate your entire data-wrangling process Despite the recent rapid growth in machine learning and predictive analytics, many of the statistical questions that are faced by researchers and practitioners still involve explaining why something is happening. Regression analysis is the best ‘swiss army knife’ we have for answering these kinds of questions. This book is a learning resource on inferential statistics and regression analysis. It teaches how to do a wide range of statistical analyses in both R and in Python, ranging from simple hypothesis testing to advanced multivariate modelling. Although it is primarily focused on examples related to the analysis of people and talent, the methods easily transfer to any discipline. The book hits a ‘sweet spot’ where there is just enough mathematical theory to support a strong understanding of the methods, but with a step-by-step guide and easily reproducible examples and code, so that the methods can be put into practice immediately. This makes the book accessible to a wide readership, from public and private sector analysts and practitioners to students and researchers. Key Features: • 16 accompanying datasets across a wide range of contexts (e.g. academic, corporate, sports, marketing) • Clear step-by-step instructions on executing the analyses. • Clear guidance on how to interpret results. • Primary instruction in R but added sections for Python coders. • Discussion exercises and data exercises for each of the main chapters. • Final chapter of practice material and datasets ideal for class homework or project work. Offers two novels and a story collection by the famed English comic writer featuring his memorable characters Bertie Wooster and his ingenious butler, Jeeves. Summary Hello! Python fully covers the building blocks of Python programming and gives you a gentle introduction to more advanced topics such as object-oriented programming, functional programming, network programming, and program design. New (or nearly new) programmers will learn most of what they need to know to start using Python immediately. About this Book Programmers love Python because it's fast and efficient. Shouldn't learning Python be just the same? Hello! Python starts quickly and simply, with a line of Python code. You'll learn the basics the right way--by writing your own programs. Along the way, you'll get a gentle

introduction to more advanced concepts and new programming styles.> No experience with Python needed. Exposure to another programming language is helpful but not required. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book. What Makes Hello! Python special Learn Python fast Even if you've never written a line of code before, you'll be writing real Python apps in just an hour or two. Great examples There's something new in every chapter, including games, web programming with Django, databases, and more. User Friendly guides Using lots of illustrations and a down-to-earth writing style, this book invites you to explore Python along with half-a-dozen traveling companions from the User Friendly cartoon strip. ==========?== Table of Contents Why Python? Hunt the Wumpus Interacting with theWorld Getting Organized Business-Oriented Programming Classes and Object-oriented Programming Sufficiently Advanced Technology Django! Gaming with Pyglet Twisted Networking Django Revisted! Where to from Here? Python dominates programminglanguages for data science, and it's an ideal first programming language forweb development and many other applications. You should learn Python, but youneedn't learn "everything" about it: just how to use it efficiently to solvereal problems. In Learn Enough Python to be Dangerous, renownedinstructor Michael Hartl teaches the specific concepts, skills, and approachesyou need to do just that. You'll learn enough about: Mastering modern developmentbest practices you'll use throughout your career Working with essential Pythondata types and syntax Getting started with bothobject-oriented and functional programming (including comprehensions) Publishing Python packages Building more reliable codewith testing and Test-Driven Development (TDD) Beginning web developmentwith Flask Solving your first datascience problems And much more Even if you're a completebeginner, Hartl helps you quickly build technical sophistication and master thelore you need to succeed. Focused exercises help you internalize what matters, without wasting time on details pros don't care about. Soon, it'll be like youwere born knowing Python - and you'll be suddenly, seriously dangerous. Just Enough R! An Interactive Approach to Machine Learning and Analytics presents just enough of the R language, machine learning algorithms, statistical methodology, and analytics for the reader to learn how to find interesting structure in data. The approach might be called "seeing then doing" as it first gives step-by-step explanations using simple, understandable examples of how the various machine learning algorithms work independent of any programming language. This is followed by detailed scripts written in R that apply the algorithms to solve nontrivial problems with real data. The script code is provided, allowing the reader to execute the scripts as they study the explanations given in the text. Features Gets you quickly using R as a problem-solving tool Uses RStudio’s integrated development environment Shows how to interface R with SQLite Includes examples using R’s Rattle graphical user interface Requires no prior knowledge of R, machine learning, or computer programming Offers over 50 scripts written in R, including several problem-solving templates that, with

slight modification, can be used again and again Covers the most popular machine learning techniques, including ensemble-based methods and logistic regression Includes end-of-chapter exercises, many of which can be solved by modifying existing scripts Includes datasets from several areas, including business, health and medicine, and science About the Author Richard J. Roiger is a professor emeritus at Minnesota State University, Mankato, where he taught and performed research in the Computer and Information Science Department for over 30 years. Humour. Text Mining and Visualization: Case Studies Using Open-Source Tools provides an introduction to text mining using some of the most popular and powerful open-source tools: KNIME, RapidMiner, Weka, R, and Python. The contributors-all highly experienced with text mining and open-source software-explain how text data are gathered and processed from a w How do you take your data analysis skills beyond Excel to the next level? By learning just enough Python to get stuff done. This hands-on guide shows non-programmers like you how to process information that’s initially too messy or difficult to access. You don't need to know a thing about the Python programming language to get started. Through various step-by-step exercises, you’ll learn how to acquire, clean, analyze, and present data efficiently. You’ll also discover how to automate your data process, schedule file- editing and clean-up tasks, process larger datasets, and create compelling stories with data you obtain. Quickly learn basic Python syntax, data types, and language concepts Work with both machine-readable and human-consumable data Scrape websites and APIs to find a bounty of useful information Clean and format data to eliminate duplicates and errors in your datasets Learn when to standardize data and when to test and script data cleanup Explore and analyze your datasets with new Python libraries and techniques Use Python solutions to automate your entire data-wrangling process As the open-source and free competitor to expensive software like MapleTM, Mathematica®, Magma, and MATLAB®, Sage offers anyone with access to a web browser the ability to use cutting-edge mathematical software and display his or her results for others, often with stunning graphics. This book is a gentle introduction to Sage for undergraduate students toward the end of Calculus II (single-variable integral calculus) or higher-level course work such as Multivariate Calculus, Differential Equations, Linear Algebra, or Math Modeling. The book assumes no background in computer science, but the reader who finishes the book will have learned about half of a first semester Computer Science I course, including large parts of the Python programming language. The audience of the book is not only math majors, but also physics, engineering, finance, statistics, chemistry, and computer science majors. "Have you always wanted to learn computer programming but are afraid it'll be too difficult for you? Or perhaps you know other programming languages but are interested in learning the Python language fast? This book is for you"--Page 4 of cover. Gain comprehensive insights into programming practices, and code portability and reuse to build flexible and maintainable apps using object-oriented principles Key FeaturesExtend core OOP techniques to increase integration of classes created with PythonExplore various Python libraries for

handling persistence and object serializationLearn alternative approaches for solving programming problems, with different attributes to address your problem domainBook Description Object-oriented programming (OOP) is a relatively complex discipline to master, and it can be difficult to see how general principles apply to each language's unique features. With the help of the latest edition of Mastering Objected-Oriented Python, you'll be shown how to effectively implement OOP in Python, and even explore Python 3.x. Complete with practical examples, the book guides you through the advanced concepts of OOP in Python, and demonstrates how you can apply them to solve complex problems in OOP. You will learn how to create high-quality Python programs by exploring design alternatives and determining which design offers the best performance. Next, you'll work through special methods for handling simple object conversions and also learn about hashing and comparison of objects. As you cover later chapters, you'll discover how essential it is to locate the best algorithms and optimal data structures for developing robust solutions to programming problems with minimal computer processing. Finally, the book will assist you in leveraging various Python features by implementing object-oriented designs in your programs. By the end of this book, you will have learned a number of alternate approaches with different attributes to confidently solve programming problems in Python. What you will learnExplore a variety of different design patterns for the __init__() methodLearn to use Flask to build a RESTful web serviceDiscover SOLID design patterns and principlesUse the features of Python 3's abstract baseCreate classes for your own applicationsDesign testable code using pytest and fixturesUnderstand how to design context managers that leverage the 'with' statementCreate a new type of collection using standard library and design techniquesDevelop new number types above and beyond the built-in classes of numbersWho this book is for This book is for developers who want to use Python to create efficient programs. A good understanding of Python programming is required to make the most out of this book. Knowledge of concepts related to object-oriented design patterns will also be useful. Rumors life-saving dust Chu Mu Xian Wang became the ancient Dian country funerary goods, touch Jin Xiaowei depth quotidian, the tomb Revisited odd risk. Three through the ancient Dian country under cover Longshan secret sewer, only to encounter the Millennium Chong organ surgery, thousands into slavery, "Chong figurines" like a bomb hung upside down in the roof; the jungle night now "SOS" code, was once buried here Flying Tigers haunted by ghosts, or offering the king's high priest provided under the puzzle? Although most terrifying avoid legendary smog, but in the tomb offered leading to the entrance - a gourd-shaped cave, they found Xian Wang has fed live mountain. Three way adventure continues, eventually find any way to escape Hulu Cave, was surprised to find in front of a mythical palace - "! Oh my God" Discover modern, next-generation sequencing libraries from the powerful Python ecosystem to perform cutting-edge research and analyze large amounts of biological data Key Features Perform complex bioinformatics analysis using the most essential Python libraries and applications Implement next-generation sequencing,

metagenomics, automating analysis, population genetics, and much more Explore various statistical and machine learning techniques for bioinformatics data analysis Book Description Bioinformatics is an active research field that uses a range of simple-to-advanced computations to extract valuable information from biological data, and this book will show you how to manage these tasks using Python. This updated third edition of the Bioinformatics with Python Cookbook begins with a quick overview of the various tools and libraries in the Python ecosystem that will help you convert, analyze, and visualize biological datasets. Next, you'll cover key techniques for next-generation sequencing, single-cell analysis, genomics, metagenomics, population genetics, phylogenetics, and proteomics with the help of real-world examples. You'll learn how to work with important pipeline systems, such as Galaxy servers and Snakemake, and understand the various modules in Python for functional and asynchronous programming. This book will also help you explore topics such as SNP discovery using statistical approaches under high-performance computing frameworks, including Dask and Spark. In addition to this, you'll explore the application of machine learning algorithms in bioinformatics. By the end of this bioinformatics Python book, you'll be equipped with the knowledge you need to implement the latest programming techniques and frameworks, empowering you to deal with bioinformatics data on every scale. What you will learn Become well-versed with data processing libraries such as NumPy, pandas, arrow, and zarr in the context of bioinformatic analysis Interact with genomic databases Solve real-world problems in the fields of population genetics, phylogenetics, and proteomics Build bioinformatics pipelines using a Galaxy server and Snakemake Work with functools and itertools for functional programming Perform parallel processing with Dask on biological data Explore principal component analysis (PCA) techniques with scikit-learn Who this book is for This book is for bioinformatics analysts, data scientists, computational biologists, researchers, and Python developers who want to address intermediate-to-advanced biological and bioinformatics problems. Working knowledge of the Python programming language is expected. Basic knowledge of biology will also be helpful. **Step-by-step guide to practising data science techniques with Jupyter notebooks Description** Modern businesses are awash with data, making data driven decision-making tasks increasingly complex. As a result, relevant technical expertise and analytical skills are required to do such tasks. This book aims to equip you with just enough knowledge of Python in conjunction with skills to use powerful tool such as Jupyter Notebook in order to succeed in the role of a data scientist. The book starts with a brief introduction to the world of data science and the opportunities you may come across along with an overview of the key topics covered in the book. You will learn how to setup Anaconda installation which comes with Jupyter and preinstalled Python packages. Before diving in to several supervised, unsupervised and other machine learning techniques, you’ll learn how to use basic data structures, functions, libraries and packages required to import, clean, visualize and process data. Several machine learning techniques such as regression,

classification, clustering, time-series etc have been explained with the use of practical examples and by comparing the performance of various models. By the end of the book, you will come across few case studies to put your knowledge to practice and solve real-life business problems such as building a movie recommendation engine, classifying spam messages, predicting the ability of a borrower to repay loan on time and time series forecasting of housing prices. Remember to practice additional examples provided in the code bundle of the book to master these techniques. **Audience** The book is intended for anyone looking for a career in data science, all aspiring data scientists who want to learn the most powerful programming language in Machine Learning or working professionals who want to switch their career in Data Science. While no prior knowledge of Data Science or related technologies is assumed, it will be helpful to have some programming experience. **Key Features** · Acquire Python skills to do independent data science projects · Learn the basics of linear algebra and statistical science in Python way · Understand how and when they're used in data science · Build predictive models, tune their parameters and analyze performance in few steps · Cluster, transform, visualize, and extract insights from unlabelled datasets · Learn how to use matplotlib and seaborn for data visualization · Implement and save machine learning models for real-world business scenarios **Table of Contents** 1) Data Science Fundamentals 2) Installing Software and Setting up 3) Lists and Dictionaries 4) Function and Packages 5) NumPy Foundation 6) Pandas and Dataframe 7) Interacting with Databases 8) Thinking Statistically in Data Science 9) How to import data in Python? 10) Cleaning of imported data 11) Data Visualization 12) Data Pre-processing 13) Supervised Machine Learning 14) Unsupervised Machine Learning 15) Handling Time-Series Data 16) Time-Series Methods 17) Case Study – 1 18) Case Study – 2 19) Case Study – 3 20) Case Study – 4 This book has two objectives--to provide a comprehensive reference on using XML with Python; and to illustrate the practical applications of these technologies in an enterprise environment with examples. Implement scikit-learn into every step of the data science pipelineAbout This Book* Use Python and scikit-learn to create intelligent applications* Discover how to apply algorithms in a variety of situations to tackle common and not-so common challenges in the machine learning domain* A practical, example-based guide to help you gain expertise in implementing and evaluating machine learning systems using scikit-learnWho This Book Is ForIf you are a programmer and want to explore machine learning and data-based methods to build intelligent applications and enhance your programming skills, this is the course for you. No previous experience with machine-learning algorithms is required.What You Will Learn* Review fundamental concepts including supervised and unsupervised experiences, common tasks, and performance metrics* Classify objects (from documents to human faces and flower species) based on some of their features, using a variety of methods from Support Vector Machines to Naive Bayes* Use Decision Trees to explain the main causes of certain phenomena such as passenger survival on the Titanic* Evaluate the performance of machine learning systems in common tasks*

Master algorithms of various levels of complexity and learn how to analyze data at the same time* Learn just enough math to think about the connections between various algorithms* Customize machine learning algorithms to fit your problem, and learn how to modify them when the situation calls for it* Incorporate other packages from the Python ecosystem to munge and visualize your dataset* Improve the way you build your models using parallelization techniquesIn DetailMachine learning, the art of creating applications that learn from experience and data, has been around for many years. Python is quickly becoming the go-to language for analysts and data scientists due to its simplicity and flexibility; moreover, within the Python data space, scikit-learn is the unequivocal choice for machine learning. The course combines an introduction to some of the main concepts and methods in machine learning with practical, hands-on examples of real-world problems. The course starts by walking through different methods to prepare your data-be it a dataset with missing values or text columns that require the categories to be turned into indicator variables. After the data is ready, you'll learn different techniques aligned with different objectives-be it a dataset with known outcomes such as sales by state, or more complicated problems such as clustering similar customers. Finally, you'll learn how to polish your algorithm to ensure that it's both accurate and resilient to new datasets. You will learn to incorporate machine learning in your applications. Ranging from handwritten digit recognition to document classification, examples are solved step-by-step using scikit-learn and Python. By the end of this course you will have learned how to build applications that learn from experience, by applying the main concepts and techniques of machine learning.Style and ApproachImplement scikit-learn using engaging examples and fun exercises, and with a gentle and friendly but comprehensive "learn-by-doing" approach. This is a practical course, which analyzes compelling data about life, health, and death with the help of tutorials. It offers you a useful way of interpreting the data that's specific to this course, but that can also be applied to any other data. This course is designed to be both a guide and a reference for moving beyond the basics of scikit-learn. This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Used by sites as varied as Twitter, GitHub, Disney, and Airbnb, Ruby on Rails is one of the most popular frameworks for developing web applications, but it can be challenging to learn and use. Whether you’re new to web development or new only to Rails, Ruby on Rails™ Tutorial, Fourth Edition, is the solution. Best-selling author and leading Rails developer Michael Hartl teaches Rails by guiding you through the development of three example applications of increasing sophistication. The tutorial’s examples focus on the general principles of web development needed for virtually any kind of website. The updates to this edition include full compatibility with Rails 5, a division of the largest chapters into more manageable units, and a huge number of new exercises interspersed in each chapter for maximum reinforcement of the material. This indispensable guide provides integrated tutorials not only for Rails, but also for the essential Ruby, HTML, CSS, and SQL

skills you need when developing web applications. Hartl explains how each new technique solves a real-world problem, and then he demonstrates it with bite-sized code that’s simple enough to understand, yet novel enough to be useful. Whatever your previous web development experience, this book will guide you to true Rails mastery. This book will help you Install and set up your Rails development environment, including pre-installed integrated development environment (IDE) in the cloud Go beyond generated code to truly understand how to build Rails applications from scratch Learn testing and test-driven development (TDD) Effectively use the Model-View-Controller (MVC) pattern Structure applications using the REST architecture Build static pages and transform them into dynamic ones Master the Ruby programming skills all Rails developers need Create high-quality site layouts and data models Implement registration and authentication systems, including validation and secure passwords Update, display, and delete users Upload images in production using a cloud storage service Implement account activation and password reset, including sending email with Rails Add social features and microblogging, including an introduction to Ajax Record version changes with Git and create a secure remote repository at Bitbucket Deploy your applications early and often with Heroku Analyze and visualize your data to make it compelling and meaningful About This Video Build a solid foundation in data analytics and apply it to real-world datasets Each section explores one key measure for exploring a given dataset and includes a case study to reinforce the topics you have learned Master the various data exploration and visualization packages in Python and apply your knowledge to any real-world dataset In Detail How do you take your data analysis skills beyond Excel to the next level? By learning just enough Python to get stuff done. This hands-on course shows non-programmers how to process information that's initially too messy or difficult to access. Through various step-by-step exercises, you'll learn how to acquire, clean, analyze, and present data efficiently. This course will take you from Python basics to explore many different types of data. Throughout the course, you will be working with real-world datasets to retrieve insights from data. You'll be exposed to different kinds of data structure and data-related problems. You'll learn how to prepare data for analysis, perform simple statistical analyses, create meaningful data visualizations, predict future trends from data, and more! Downloading the example code for this course: You can download the example code files for this course on GitHub at the following link: https://github.com/PacktPublishing/Exploratory-Data-Analysis-with-Pandas-and-Python-3.x . If you require support please email: customercare@packt.com. Make the Leap From Beginner to Intermediate in Python... Python Basics: A Practical Introduction to Python 3 Your Complete Python Curriculum-With Exercises, Interactive Quizzes, and Sample Projects What should you learn about Python in the beginning to get a strong foundation? With Python Basics, you'll not only cover the core concepts you really need to know, but you'll also learn them in the most efficient order with the help of practical exercises and interactive quizzes. You'll know enough to be dangerous with Python, fast! Who Should Read This Book If you're new to

Python, you'll get a practical, step-by-step roadmap on developing your foundational skills. You'll be introduced to each concept and language feature in a logical order. Every step in this curriculum is explained and illustrated with short, clear code samples. Our goal with this book is to educate, not to impress or intimidate. If you're familiar with some basic programming concepts, you'll get a clear and well-tested introduction to Python. This is a practical introduction to Python that jumps right into the meat and potatoes without sacrificing substance. If you have prior experience with languages like VBA, PowerShell, R, Perl, C, C++, C#, Java, or Swift the numerous exercises within each chapter will fast-track your progress. If you're a seasoned developer, you'll get a Python 3 crash course that brings you up to speed with modern Python programming. Mix and match the chapters that interest you the most and use the interactive quizzes and review exercises to check your learning progress as you go along. If you're a self-starter completely new to coding, you'll get practical and motivating examples. You'll begin by installing Python and setting up a coding environment on your computer from scratch, and then continue from there. We'll get you coding right away so that you become competent and knowledgeable enough to solve real-world problems, fast. Develop a passion for programming by solving interesting problems with Python every day! If you're looking to break into a coding or data-science career, you'll pick up the practical foundations with this book. We won't just dump a boat load of theoretical information on you so you can "sink or swim"-instead you'll learn from hands-on, practical examples one step at a time. Each concept is broken down for you so you'll always know what you can do with it in practical terms. If you're interested in teaching others "how to Python," this will be your guidebook. If you're looking to stoke the coding flame in your coworkers, kids, or relatives-use our material to teach them. All the sequencing has been done for you so you'll always know what to cover next and how to explain it. What Python Developers Say About The Book: "Go forth and learn this amazing language using this great book." - Michael Kennedy, Talk Python "The wording is casual, easy to understand, and makes the information flow well." - Thomas Wong, Pythonista "I floundered for a long time trying to teach myself. I slogged through dozens of incomplete online tutorials. I snoozed through hours of boring screencasts. I gave up on countless crufty books from big-time publishers. And then I found Real Python. The easy-to-follow, step-by-step instructions break the big concepts down into bite-sized chunks written in plain English. The authors never forget their audience and are consistently thorough and detailed in their explanations. I'm up and running now, but I constantly refer to the material for guidance." - Jared Nielsen, Pythonista Portable, powerful, and a breeze to use, Python is the popular open source object-oriented programming language used for both standalone programs and scripting applications. Python is considered easy to learn, but there's no quicker way to mastery of the language than learning from an expert teacher. This edition of Learning Python puts you in the hands of two expert teachers, Mark Lutz and David Ascher, whose friendly, well-structured prose has guided many a programmer to proficiency with the language. Learning Python,

Second Edition, offers programmers a comprehensive learning tool for Python and object-oriented programming. Thoroughly updated for the numerous language and class presentation changes that have taken place since the release of the first edition in 1999, this guide introduces the basic elements of the latest release of Python 2.3 and covers new features, such as list comprehensions, nested scopes, and iterators/generators. Beyond language features, this edition of Learning Python also includes new context for less-experienced programmers, including fresh overviews of object-oriented programming and dynamic typing, new discussions of program launch and configuration options, new coverage of documentation sources, and more. There are also new use cases throughout to make the application of language features more concrete. The first part of Learning Python gives programmers all the information they'll need to understand and construct programs in the Python language, including types, operators, statements, classes, functions, modules and exceptions. The authors then present more advanced material, showing how Python performs common tasks by offering real applications and the libraries available for those applications. Each chapter ends with a series of exercises that will test your Python skills and measure your understanding. Learning Python, Second Edition is a self-paced book that allows readers to focus on the core Python language in depth. As you work through the book, you'll gain a deep and complete understanding of the Python language that will help you to understand the larger application-level examples that you'll encounter on your own. If you're interested in learning Python--and want to do so quickly and efficiently--then Learning Python, Second Edition is your best choice. At first consideration, it would seem that Shakespeare and Monty Python have very little in common other than that they’re both English. Shakespeare wrote during the reign of a politically puissant Elizabeth, while Python flourished under an Elizabeth figurehead. Shakespeare wrote for rowdy theatre whereas Python toiled at a remove, for television. Shakespeare is The Bard; Python is-well-not. Despite all of these differences, Shakespeare and Monty are in fact related; this work considers both the differences and similarities between the two. It discusses Shakespeare’s status as England’s National Poet and Python’s similar elevation. It explores various aspects of theatricality (troupe configurations, casting and writing choices, allusions to classical literature) used by Shakespeare, Ben Jonson and Monty Python. It also covers the uses and abuses of history in Shakespeare and Python; humor, especially satire, in Shakespeare, Jonson, Dekker and Python; and the concept of the “Other” in Shakespearean and Pythonesque creations. Easy to understand and fun to read, this updated edition of Introducing Python is ideal for beginning programmers as well as those new to the language. Author Bill Lubanovic takes you from the basics to more involved and varied topics, mixing tutorials with cookbook-style code recipes to explain concepts in Python 3. End-of-chapter exercises help you practice what you’ve learned. You’ll gain a strong foundation in the language, including best practices for testing, debugging, code reuse, and other development tips. This book also shows you how to use Python for applications in business, science, and the arts, using various

Python tools and open source packages. A brand-new edition of the popular introductory textbook that explores how computer hardware, software, and networks work Computers are everywhere. Some are highly visible, in laptops, tablets, cell phones, and smart watches. But most are invisible, like those in appliances, cars, medical equipment, transportation systems, power grids, and weapons. We never see the myriad computers that quietly collect, share, and sometimes leak personal data about us. Governments and companies increasingly use computers to monitor what we do. Social networks and advertisers know more about us than we should be comfortable with. Criminals have all-too-easy access to our data. Do we truly understand the power of computers in our world? In this updated edition of Understanding the Digital World, Brian Kernighan explains how computer hardware, software, and networks work. Topics include how computers are built and how they compute; what programming is; how the Internet and web operate; and how all of these affect security, privacy, property, and other important social, political, and economic issues. Kernighan touches on fundamental ideas from computer science and some of the inherent limitations of computers, and new sections in the book explore Python programming, big data, machine learning, and much more. Numerous color illustrations, notes on sources for further exploration, and a glossary explaining technical terms and buzzwords are included. Understanding the Digital World is a must-read for readers of all backgrounds who want to know more about computers and communications. Just Enough Python will teach you the fundamental of programming in the Python language. It is a short book that covers the basics and will get you creating useful programs quickly. Data science libraries, frameworks, modules, and toolkits are great for doing data science, but they’re also a good way to dive into the discipline without actually understanding data science. In this book, you’ll learn how many of the most fundamental data science tools and algorithms work by implementing them from scratch. If you have an aptitude for mathematics and some programming skills, author Joel Grus will help you get comfortable with the math and statistics at the core of data science, and with hacking skills you need to get started as a data scientist. Today’s messy glut of data holds answers to questions no one’s even thought to ask. This book provides you with the know-how to dig those answers out. Get a crash course in Python Learn the basics of linear algebra, statistics, and probability—and understand how and when they're used in data science Collect, explore, clean, munge, and manipulate data Dive into the fundamentals of machine learning Implement models such as k-nearest Neighbors, Naive Bayes, linear and logistic regression, decision trees, neural networks, and clustering Explore recommender systems, natural language processing, network analysis, MapReduce, and databases The agile development movement represents the latest advances in tools and techniques intended to boost developer productivity. This is the first book to apply these sought after principles to Python developers, introducing both the tools and techniques built and supported by the Python community. Authored by Jeff Younker, who is perhaps best known for his creation of a popular Python testing framework, this book is sure to be a hit among

readers who may have reached their limits of knowledge regarding the Python language, yet are seeking to improve their understanding of how sound processes can boost productivity to unparalleled heights. This book is an introduction to numerical methods for students in engineering. It covers solution of equations, interpolation and data fitting, solution of differential equations, eigenvalue problems and optimisation. The algorithms are implemented in Python 3, a high-level programming language that rivals MATLAB® in readability and ease of use. All methods include programs showing how the computer code is utilised in the solution of problems. The book is based on Numerical Methods in Engineering with Python, which used Python 2. This new edition demonstrates the use of Python 3 and includes an introduction to the Python plotting package Matplotlib. This comprehensive book is enhanced by the addition of numerous examples and problems throughout. SPSS (Statistical Package for the Social Sciences) is a data management and analysis software that allows users to generate solid, decision-making results by performing statistical analysis This book provides just the information needed: installing the software, entering data, setting up calculations, and analyzing data Covers computing cross tabulation, frequencies, descriptive ratios, means, bivariate and partial correlations, linear regression, and much more Explains how to output information into striking charts and graphs For ambitious users, also covers how to program SPSS to take their statistical analysis to the next level Learn only the essential aspects of Python without cluttering up your mind with features you may never use. This compact book is not a "best way to write code" type of book; rather, the author goes over his most-used functions, which are all you need to know as a beginner and some way beyond. Lean Python takes 58 Python methods and functions and whittles them down to 15: as author Paul Gerrard says, "I haven't found a need for the rest." What You'll Learn Discover lean Python and how to learn just enough to build useful tools Use Python objects, program structure, I/O, modules and more Handle errors and exceptions Test your code Access the Web; do searching; and persist data Who This Book Is For This book is aimed at three categories of reader: The experienced programmer – if you already know a programming language, this book gives you a shortcut to understanding the Python language and some of its design philosophy. You work in IT and need a programming primer – you might be a tester who needs to have more informed technical discussions with programmers. Working through the examples will help you to appreciate the challenge of good programming. First-timer – you want a first book on programming that you can assimilate quickly to help you decide whether programming is for you. Implement scikit-learn into every step of the data science pipeline About This Book Use Python and scikit-learn to create intelligent applications Discover how to apply algorithms in a variety of situations to tackle common and not-so common challenges in the machine learning domain A practical, example-based guide to help you gain expertise in implementing and evaluating machine learning systems using scikit-learn Who This Book Is For If you are a programmer and want to explore machine learning and data-based methods to build intelligent applications and

enhance your programming skills, this is the course for you. No previous experience with machine-learning algorithms is required. What You Will Learn Review fundamental concepts including supervised and unsupervised experiences, common tasks, and performance metrics Classify objects (from documents to human faces and flower species) based on some of their features, using a variety of methods from Support Vector Machines to Naive Bayes Use Decision Trees to explain the main causes of certain phenomena such as passenger survival on the Titanic Evaluate the performance of machine learning systems in common tasks Master algorithms of various levels of complexity and learn how to analyze data at the same time Learn just enough math to think about the connections between various algorithms Customize machine learning algorithms to fit your problem, and learn how to modify them when the situation calls for it Incorporate other packages from the Python ecosystem to munge and visualize your dataset Improve the way you build your models using parallelization techniques In Detail Machine learning, the art of creating applications that learn from experience and data, has been around for many years. Python is quickly becoming the go-to language for analysts and data scientists due to its simplicity and flexibility; moreover, within the Python data space, scikit-learn is the unequivocal choice for machine learning. The course combines an introduction to some of the main concepts and methods in machine learning with practical, hands-on examples of real-world problems. The course starts by walking through different methods to prepare your data—be it a dataset with missing values or text columns that require the categories to be turned into indicator variables. After the data is ready, you'll learn different techniques aligned with different objectives—be it a dataset with known outcomes such as sales by state, or more complicated problems such as clustering similar customers. Finally, you'll learn how to polish your algorithm to ensure that it's both accurate and resilient to new datasets. You will learn to incorporate machine learning in your applications. Ranging from handwritten digit recognition to document classification, examples are solved step-by-step using scikit-learn and Python. By the end of this course you will have learned how to build applications that learn from experience, by applying the main concepts and techniques of machine learning. Style and Approach Implement scikit-learn using engaging examples and fun exercises, and with a gentle and friendly but comprehensive "learn-by-doing" approach. This is a practical course, which analyzes compelling data about life, health, and death with the help of tutorials. It offers you a useful way of interpreting the data that's specific to this course, but that can also be applied to any other data. This course is designed to be both a guide and a reference for moving beyond the basics of scikit-learn. Useful in many roles, from design and prototyping to testing, deployment, and maintenance, Python is consistently ranked among today’s most popular programming languages. The third edition of this practical book provides a quick reference to the language—including Python 3.5, 2.7, and highlights of 3.6—commonly used areas of its vast standard library, and some of the most useful third-party modules and packages. Ideal for programmers with some Python experience, and those coming to

Python from other programming languages, this book covers a wide range of application areas, including web and network programming, XML handling, database interactions, and high-speed numeric computing. Discover how Python provides a unique mix of elegance, simplicity, practicality, and sheer power. This edition covers: Python syntax, Object-Oriented Python, standard library modules, and third-party Python packages Python’s support for file and text operations, persistence and databases, concurrent execution, and numeric computations Networking basics, event-driven programming, and client-side network protocol modules Python extension modules, and tools for packaging and distributing extensions, modules, and applications You've decided to tackle machine learning - because you're job hunting, embarking on a new project, or just think self-driving cars are cool. But where to start? It's easy to be intimidated, even as a software developer. The good news is that it doesn't have to be that hard. Master machine learning by writing code one line at a time, from simple learning programs all the way to a true deep learning system. Tackle the hard topics by breaking them down so they're easier to understand, and build your confidence by getting your hands dirty. Peel away the obscurities of machine learning, starting from scratch and going all the way to deep learning. Machine learning can be intimidating, with its reliance on math and algorithms that most programmers don't encounter in their regular work. Take a hands-on approach, writing the Python code yourself, without any libraries to obscure what's really going on. Iterate on your design, and add layers of complexity as you go. Build an image recognition application from scratch with supervised learning. Predict the future with linear regression. Dive into gradient descent, a fundamental algorithm that drives most of machine learning. Create perceptrons to classify data. Build neural networks to tackle more complex and sophisticated data sets. Train and refine those networks with backpropagation and batching. Layer the neural networks, eliminate overfitting, and add convolution to transform your neural network into a true deep learning system. Start from the beginning and code your way to machine learning mastery. What You Need: The examples in this book are written in Python, but don't worry if you don't know this language: you'll pick up all the Python you need very quickly. Apart from that, you'll only need your computer, and your code-adept brain. IF YOU LIKE MONTY PYTHON... Developers power their projects with Python because it emphasizes readability, ease of use, and access to a meticulously maintained set of packages and tools. The language itself continues to improve with every release: writing in Python is full of possibility. But to maintain a successful Python project, you need to know more than just the language. You need tooling and instincts to help you make the most out of what's available to you. Use this book as your guide to help you hone your skills and sculpt a Python project that can stand the test of time. No matter your experience level or background, Python's batteries-included standard library and rich third-party ecosystem provide a solid foundation to build your projects on. With the right intuition and background knowledge, you can take advantage of all the power Python offers. Take a guided tour of some of Python's high points to craft a project that

you can sustain and build on for a long time. Run static analysis tools to detect and eliminate classes of bugs before you run code. Experiment with Python's concurrency model and develop patterns for using Python's thread and process abstractions to their full potential. Introduce yourself to Python's type hinting system: mypy. Download and run third-party Python packages and do so safely without compromising on security. Debug code using Python's built in debugger, and try procedures out in the interactive console. Run your code under new versions of the Python interpreter to unlock performance and usability improvements. All along the way, sharpen your Python instincts so you can keep your code clean and reduce the chance of bugs. Mine Python for all you can by playing to its strengths and embracing patterns that harness its potential. What You Need: The books assumes you have some experience programming in any language (not necessarily Python). To run the code presented in the book, you'll need a Python environment which you can download from https://www.python.org/downloads/. A demonstration of Python's basic technologies showcases the programming language's possiblities as a Windows development and administration tool. Discover which ARTIK modules to use for various applications, and how to produce code for them. This book goes beyond the information previously available online, efficiently guiding developers from initial setup of their development environment to product development and prototyping in no time. Beginners will find helpful background insights into foundation technology and useful reference information is included for more advanced developers. Samsung's announcement of the new ARTIK modules for IoT has generated tremendous interest in the developer market for wearable and other consumer or industrial devices. This book provides the perfect tutorial-based introduction to the ARTIK family of “Systems on Modules,” which integrate powerful microprocessors, memory, wireless connectivity, and enhanced security on to very small form factor boards. With Beginning Samsung ARTIK as your guide, take the next steps to creating great solutions with an ARTIK. What You'll Learn Use terminal emulators to access the command line and talk to the device Establish Wi-Fi connectivity with a wireless network Upgrade the operating system and install additional software Bring up Eclipse IDE and create a cross-compiler toolchain on Mac OS X Cross-compile for the ARM processors in the ARTIK modules using Arduino IDE with libArduino to C Use C to access the ARTIK hardware via a file based API Use Node.js and Python inside the ARTIK module Integrate applications with the Samsung SAMI data aggregation hub Use Temboo to generate IoT software solutions that can be downloaded and compiled natively inside the ARTIK Debug applications with software and hardware probes Who This Book Is For Moderately experienced developers wanting to understand ARTIK and how to interact with it from within their own apps or web services. Using clear explanations and step-by-step tutorial lessons, you will learn the underlying mechanics of the Python language, the tools in its ecosystem, tips and tricks, and much more. Step-by-step guide to practising data science techniques with Jupyter notebooksKey features Acquire Python skills to do independent data science projects Learn

the basics of linear algebra and statistical science in Python way Understand how and when they're used in data science Build predictive models, tune their parameters and analyze performance in few steps Cluster, transform, visualize, and extract insights from unlabelled datasets Learn how to use matplotlib and seaborn for data visualization Implement and save machine learning models for real-world business scenarios Description Modern businesses are awash with data, making data driven decision-making tasks increasingly complex. As a result, relevant technical expertise and analytical skills are required to do such tasks. This book aims to equip you with just enough knowledge of Python in conjunction with skills to use powerful tool such as Jupyter Notebook in order to succeed in the role of a data scientist. The book starts with a brief introduction to the world of data science and the opportunities you may come across along with an overview of the key topics covered in the book. You will learn how to setup Anaconda installation which comes with Jupyter and preinstalled Python packages. Before diving in to several supervised, unsupervised and other machine learning techniques, you'll learn how to use basic data structures, functions, libraries and packages required to import, clean, visualize and process data. Several machine learning techniques such as regression, classification, clustering, time-series etc have been explained with the use of practical examples and by comparing the performance of various models. By the end of the book, you will come across few case studies to put your knowledge to practice and solve real-life business problems such as building a movie recommendation engine, classifying spam messages, predicting the ability of a borrower to repay loan on time and time series forecasting of housing prices. Remember to practice additional examples provided in the code bundle of the book to master these techniques.Who this book is forThe book is intended for anyone looking for a career in data science, all aspiring data scientists who want to learn the most powerful programming language in Machine Learning or working professionals who want to switch their career in Data Science. While no prior knowledge of Data Science or related technologies is assumed, it will be helpful to have some programming experience.Table of contents1. Data Science Fundamentals2. Installing Software and Setting up3. Lists and Dictionaries4. Function and Packages5. NumPy Foundation6. Pandas and Dataframe7. Interacting with Databases8. Thinking Statistically in Data Science9. How to import data in Python?10. Cleaning of imported data11. Data Visualization12. Data Pre-processing13. Supervised Machine Learning14. Unsupervised Machine Learning15. Handling Time-Series Data16. Time-Series Methods 17. Case Study - 118. Case Study - 219. Case Study - 320. Case Study - 4About the authorPrateek is a Data Enthusiast and loves the data driven technologies. Prateek has total 7 years of experience and currently he is working as a Data Scientist in an MNC. He has worked with finance and retail clients and has developed Machine Learning and Deep Learning solutions for their business. His keen area of interest is in natural language processing and in computer vision. In leisure he writes posts about Data Science with Python in his blog.