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Beginning Programming with Python For Dummies - John Paul Mueller 2018-02-13

The easy way to learn programming fundamentals with Python Python is a remarkably powerful and dynamic programming language that's used in a wide variety of application domains. Some of its key

distinguishing features include a very clear, readable syntax, strong introspection capabilities, intuitive object orientation, and natural expression of procedural code. Plus, Python features full modularity, supporting hierarchical packages, exception-based error handling, and modules easily written in C, C++,

Java, R, or .NET languages, such as C#. In addition, Python supports a number of coding styles that include: functional, imperative, object-oriented, and procedural. Due to its ease of use and flexibility, Python is constantly growing in popularity—and now you can wear your programming hat with pride and join the ranks of the pros with the help of this guide. Inside, expert author John Paul Mueller gives a complete step-by-step overview of all there is to know about Python. From performing common and advanced tasks, to collecting data, to interacting with package—this book covers it all! Use Python to create and run your first application Find out how to troubleshoot and fix errors Learn to work with Anaconda and use Magic Functions Benefit from completely updated and revised information since the last edition If you've never used Python or are new to programming in general, Beginning Programming with Python For Dummies is a helpful resource that will set you up for success.

How to Code in Python 3 - Lisa Tagliaferri 2018

This educational book introduces emerging developers to computer programming through the Python software development language, and serves as a reference book for experienced developers looking to learn a new language or re-familiarize themselves with computational logic and syntax.

A Beginners Guide to Python 3

Programming - John Hunt 2019-08-08

This textbook on Python 3 explains concepts such as variables and what they represent, how data is held in memory, how a for loop works and what a string is. It also introduces key concepts such as functions, modules and packages as well as object orientation and functional programming. Each section is prefaced with an introductory chapter, before continuing with how these ideas work in Python. Topics such as generators and coroutines are often misunderstood and these are explained in

detail, whilst topics such as Referential Transparency, multiple inheritance and exception handling are presented using examples. A Beginners Guide to Python 3 Programming provides all you need to know about Python, with numerous examples provided throughout including several larger worked case studies illustrating the ideas presented in the previous chapters.

Python Crash Course - Eric Matthes
2015-11-01

Python Crash Course is a fast-paced, thorough introduction to Python that will have you writing programs, solving problems, and making things that work in no time. In the first half of the book, you'll learn about basic programming concepts, such as lists, dictionaries, classes, and loops, and practice writing clean and readable code with exercises for each topic. You'll also learn how to make your programs interactive and how to test your code safely before adding it to a project. In the second half of the book, you'll put

your new knowledge into practice with three substantial projects: a Space Invaders-inspired arcade game, data visualizations with Python's super-handly libraries, and a simple web app you can deploy online. As you work through Python Crash Course you'll learn how to:

- Use powerful Python libraries and tools, including matplotlib, NumPy, and Pygal
- Make 2D games that respond to keypresses and mouse clicks, and that grow more difficult as the game progresses
- Work with data to generate interactive visualizations
- Create and customize Web apps and deploy them safely online
- Deal with mistakes and errors so you can solve your own programming problems

If you've been thinking seriously about digging into programming, Python Crash Course will get you up to speed and have you writing real programs fast. Why wait any longer? Start your engines and code!

Uses Python 2 and 3
Python Scripting for Computational Science - Hans Petter Langtangen 2009-01-09

With a primary focus on examples and applications of relevance to computational scientists, this brilliantly useful book shows computational scientists how to develop tailored, flexible, and human-efficient working environments built from small scripts written in the easy-to-learn, high-level Python language. All the tools and examples in this book are open source codes. This third edition features lots of new material. It is also released after a comprehensive reorganization of the text. The author has inserted improved examples and tools and updated information, as well as correcting any errors that crept in to the first imprint.

Python All-in-One For Dummies - John C. Shovic
2021-03-29

The one-stop resource for all your Python queries Powerful and flexible, Python is one of the most popular programming languages in the world. It's got all the right stuff for the software driving the cutting-edge of the development

world—machine learning, robotics, artificial intelligence, data science, etc. The good news is that it's also pretty straightforward to learn, with a simplified syntax, natural-language flow, and an amazingly supportive user community. The latest edition of *Python All-in-One For Dummies* gives you an inside look at the exciting possibilities offered in the Python world and provides a springboard to launch yourself into wherever you want your coding career to take you. These 7 straightforward and friendly mini-books assume the reader is a beginning programmer, and cover everything from the basic elements of Python code to introductions to the specific applications where you'll use it. Intended as a hands-on reference, the focus is on practice over theory, providing you with examples to follow as well as code for you to copy and start modifying in the "real world"—helping you get up and running in your area of interest almost right away. This means you'll be finishing off your first app or building

and remote-controlling your own robot much faster than you can believe. Get a thorough grounding in the language basics Learn how the syntax is applied in high-profile industries Apply Python to projects in enterprise Find out how Python can get you into hot careers in AI, big data, and more Whether you're a newbie coder or just want to add Python to your magic box of tricks, this is the perfect, practical introduction—and one you'll return to as you grow your career.

Non-Programmers Tutorial For Python 2 and 3 - Josh Cogliati 2018-04-19

This book is a tutorial for the Python 2 and 3 programming language designed for someone with no programming experience. All the examples work in Python 2.6 and Python 3.

Machine Learning for OpenCV 4 - Aditya Sharma 2019-09-06

A practical guide to understanding the core machine learning and deep learning algorithms, and implementing them to create intelligent

image processing systems using OpenCV 4 Key FeaturesGain insights into machine learning algorithms, and implement them using OpenCV 4 and scikit-learnGet up to speed with Intel OpenVINO and its integration with OpenCV 4Implement high-performance machine learning models with helpful tips and best practicesBook Description OpenCV is an opensource library for building computer vision apps. The latest release, OpenCV 4, offers a plethora of features and platform improvements that are covered comprehensively in this up-to-date second edition. You'll start by understanding the new features and setting up OpenCV 4 to build your computer vision applications. You will explore the fundamentals of machine learning and even learn to design different algorithms that can be used for image processing. Gradually, the book will take you through supervised and unsupervised machine learning. You will gain hands-on experience using scikit-learn in Python for a variety of machine learning applications.

Later chapters will focus on different machine learning algorithms, such as a decision tree, support vector machines (SVM), and Bayesian learning, and how they can be used for object detection computer vision operations. You will then delve into deep learning and ensemble learning, and discover their real-world applications, such as handwritten digit classification and gesture recognition. Finally, you'll get to grips with the latest Intel OpenVINO for building an image processing system. By the end of this book, you will have developed the skills you need to use machine learning for building intelligent computer vision applications with OpenCV 4. What you will learn

Understand the core machine learning concepts for image processing
Explore the theory behind machine learning and deep learning algorithm design
Discover effective techniques to train your deep learning models
Evaluate machine learning models to improve the performance of your models
Integrate algorithms

such as support vector machines and Bayes classifier in your computer vision applications

Use OpenVINO with OpenCV 4 to speed up model inference

Who this book is for

This book is for Computer Vision professionals, machine learning developers, or anyone who wants to learn machine learning algorithms and implement them using OpenCV 4. If you want to build real-world Computer Vision and image processing applications powered by machine learning, then this book is for you. Working knowledge of Python programming is required to get the most out of this book.

Step By Step Database Programming using Python GUI & MySQL - Hamzan Wadi

This book provides a practical explanation of database programming using Python GUI & MySQL. The discussion in this book is presented in step by step so that it will help readers understand each material and also will make it easier for the readers to follow all of the instructions. This book is very suitable for

students, programmers, and anyone who want to learn database programming using Python GUI & MySQL from scratch. This book is divided into two parts: The first part of this book will discuss about the fundamentals of database programming using Python GUI & MySQL. This part will discuss in detail about how to setup your working environment and how to understand GUI programming using Python. This part will also discuss in detail about how to start your database programming using Python GUI & MySQL. This part will discuss in detail about the basic of database programming using Python GUI & MySQL. The second part of this book will discuss about how to build database application using Python GUI & MySQL. This part will discuss in detail about how to build Multiple Document Interface (MDI) database application through real project-based example. This part will discuss in detail about how to design and create database for Library Management System application, and how to

create all forms for the application. The final objective of this book is that the readers are able to create real database application using Python GUI & MySQL. Here are the materials that you will learn in this book. PART I: THE FUNDAMENTAL OF DATABASE PROGRAMMING USING PYTHON GUI & MySQL CHAPTER 1: The discussion in this chapter will guide you in preparing what software are needed to start your database programming using Python GUI. This chapter will guide you to install all software including Python, MySQL, and Qt Designer. In addition, this chapter also will discuss about how to understand and use Qt Designer for user interface design, and how to create a GUI application using Python and Qt Designer. CHAPTER 2: The discussion in this chapter will guide you to start your database programming using Python GUI & MySQL. This chapter will discuss in detail about the basic of database programming using Python GUI & MySQL. The

discussion in this chapter will talk about how to create and drop database, how to create and drop table, how to insert data into table, how to display data from table, how to update data in table, and how to delete data in table. All discussions in this chapter will give you deep understanding of database programming using Python GUI & MySQL. PART II: BUILDING DATABASE APPLICATION USING PYTHON GUI & MySQL, CASE STUDY: LIBRARY MANAGEMENT SYSTEM APPLICATION

CHAPTER 3: The discussion in this chapter will guide you to design and create database for library management system application. This is the first step that must be taken to create database application using Python GUI & MySQL. This chapter will discuss in detail about how to design the Entity Relationship Diagram (ERD) for library management system application. The discussion in this chapter will also talk about how to create database and its tables based on the ERD design using MySQL

server. CHAPTER 4: The discussion in this chapter will guide you to create main form and login form for the application. This chapter will discuss in detail about how to create these two forms. These forms are the first two forms that we will create in building library management system application. This chapter will also discuss about how to run the application. CHAPTER 5: The discussion in this chapter will guide you to create user accounts form and members form for Library Management System application. This chapter will discuss in detail about how to create these two forms. This chapter will also discuss about how to add these two forms as MDI sub windows of the main form. And the final discussion of this chapter will guide you to use the forms to manage user accounts and members data of Library Management System application. CHAPTER 6: The discussion in this chapter will guide you to create authors form, genres form, and books form for Library Management System application. This chapter

will discuss in detail about how to create these three forms. This chapter will also discuss about how to add books form as MDI sub window of the main form. And the final discussion of this chapter will guide you to use the forms to manage authors, genres, and books data in Library Management System application.

CHAPTER 7: The discussion in this chapter will guide you to create member search form, book search form, and loan transaction form for Library Management System application. This chapter will discuss in detail about how to create these three forms. This chapter will also discuss about how to add loan transaction form as MDI sub window of the main form. And the final discussion of this chapter will guide you to use the forms to manage loan transactions in Library Management System application. CHAPTER 8: The discussion in this chapter will guide you to create members statistic form, books statistic form, and loan statistic form for Library Management System application. This chapter

will discuss in detail about how to create these three forms. This chapter will also discuss about how to add all of the forms as MDI sub windows of the main form. And the final discussion of this chapter will guide you to use all of the forms to display the statistics in the library.

Python Made Easy - Nilabh Nishchhal
2020-10-20

Python Made Easy: Beginners Guide to Programming and Data Analysis using Python
Get comprehensive learning of Python Programming starting from the very basics and going up to utilizing python libraries for data analysis and Visualization. Based on the author's journey to master Python, this book will help you to quickly start with writing programs and solving your problems using Python. It provides an ideal and elegant way to start learning Python, both for a newcomer to the programming world and a professional developer expert in other languages. This book comes loaded with illustrations and real-life

examples. It gives you exercises which challenge you to refresh your conceptual clarity and write better codes. It is super easy to follow and will work as a self-paced tutorial to get you started with the latest and best in Python. All the advanced Python features to date are included. • Get to know the history, present, and future of Data Science • Get introduced to the basics of Computer Programming • Explore the exciting world of Python using Anaconda • Learn how to install and use Python on your computer • Create your Variables, Objects and learn Syntax of operations • Explore Python's built-in object types like Lists, dictionaries, Tuples, Strings and sets • Learn to make your codes reusable by using functions • Organize your codes, functions and other objects into larger components with Modules • Explore Classes - the Object-Oriented Programming tool for elegant codes • Write complex codes and learn how to handle Errors and Exceptions • Learn about NumPy arrays and operations on them • Explore data analysis using

pandas on a real-life data set • Dive into the exciting world of Visualization with 3 chapters on Visualization and Matplotlib • Experience the Power of What you learnt by 3 projects • Learn to make your own application complete with GUI by using API

Python Programming, Deep Learning -

Anthony Adams 2021-12-17

Easily Boost Your Skills In Python Programming & Become A Master In Deep Learning & Data Analysis! ☐ Python is an interpreted, high-level, general-purpose programming language that emphasizes code readability with its notable use of significant whitespace. What makes Python so popular in the IT industry is that it uses an object-oriented approach, which enables programmers to write clear, logical code for all types of projects, whether big or small. Hone your Python Programming skills and gain a sharp edge over other programmers the EASIEST way possible... with this practical beginner's guide! In his 3-in-1 Python crash

course for beginners, Anthony Adams gives novices like you simple, yet efficient tips and tricks to become a MASTER in Python coding for artificial intelligence, neural networks, machine learning, and data science/analysis! Here's what you'll get:

- Highly innovative ways to boost your understanding of Python programming, data analysis, and machine learning
- Quickly and effectively stop fraud with machine learning
- Practical and efficient exercises that make understanding Python quick & easy

And so much more! As a beginner, you might feel a bit intimidated by the complexities of coding. Add the fact that most Python Programming crash course guides make learning harder than it has to be!

- With the help of this 3-in-1 guide, you will be given carefully sequenced Python Programming lessons that'll maximize your understanding, and equip you with all the skills for real-life application!
- Thrive in the IT industry with this comprehensive Python Programming crash course!
- Scroll up, Click on

“Buy Now”, and Start Learning Today!

Python Tutorial - Guido Rossum 2018-06-19

Python is an easy to learn, powerful programming language. It has efficient high-level data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its interpreted nature, make it an ideal language for scripting and rapid application development in many areas on most platforms. The Python interpreter and the extensive standard library are freely available in source or binary form for all major platforms from the Python Web site, <https://www.python.org/>, and may be freely distributed. The same site also contains distributions of and pointers to many free third party Python modules, programs and tools, and additional documentation. The Python interpreter is easily extended with new functions and data types implemented in C or C++ (or other languages callable from C). Python is also

suitable as an extension language for customizable applications. This tutorial introduces the reader informally to the basic concepts and features of the python language and system. It helps to have a Python interpreter handy for hands-on experience, but all examples are self contained, so the tutorial can be read off-line as well. For a description of standard objects and modules, see [library-index](#). [reference-index](#) gives a more formal definition of the language. To write extensions in C or C++, read [extending-index](#) and [c-api-index](#). There are also several books covering Python in depth. This tutorial does not attempt to be comprehensive and cover every single feature, or even every commonly used feature. Instead, it introduces many of Python's most noteworthy features, and will give you a good idea of the language's flavor and style. After reading it, you will be able to read and write Python modules and programs, and you will be ready to learn more about the various Python library modules

described in [library-index](#). The Glossary is also worth going through.

Invent Your Own Computer Games with Python, 4th Edition - Al Sweigart 2016-12-16
Invent Your Own Computer Games with Python will teach you how to make computer games using the popular Python programming language—even if you've never programmed before! Begin by building classic games like Hangman, Guess the Number, and Tic-Tac-Toe, and then work your way up to more advanced games, like a text-based treasure hunting game and an animated collision-dodging game with sound effects. Along the way, you'll learn key programming and math concepts that will help you take your game programming to the next level. Learn how to: -Combine loops, variables, and flow control statements into real working programs -Choose the right data structures for the job, such as lists, dictionaries, and tuples -Add graphics and animation to your games with the pygame module -Handle keyboard and

mouse input -Program simple artificial intelligence so you can play against the computer -Use cryptography to convert text messages into secret code -Debug your programs and find common errors As you work through each game, you'll build a solid foundation in Python and an understanding of computer science fundamentals. What new game will you create with the power of Python? The projects in this book are compatible with Python 3.

Python 101 - Michael Driscoll 2014-06-03

Learn how to program with Python from beginning to end. This book is for beginners who want to get up to speed quickly and become intermediate programmers fast!

Machine Learning Guide for Oil and Gas Using Python - Hoss Belyadi 2021-04-09

Machine Learning Guide for Oil and Gas Using Python: A Step-by-Step Breakdown with Data, Algorithms, Codes, and Applications delivers a critical training and resource tool to help

engineers understand machine learning theory and practice, specifically referencing use cases in oil and gas. The reference moves from explaining how Python works to step-by-step examples of utilization in various oil and gas scenarios, such as well testing, shale reservoirs and production optimization. Petroleum engineers are quickly applying machine learning techniques to their data challenges, but there is a lack of references beyond the math or heavy theory of machine learning. Machine Learning Guide for Oil and Gas Using Python details the open-source tool Python by explaining how it works at an introductory level then bridging into how to apply the algorithms into different oil and gas scenarios. While similar resources are often too mathematical, this book balances theory with applications, including use cases that help solve different oil and gas data challenges. Helps readers understand how open-source Python can be utilized in practical oil and gas challenges Covers the most commonly used algorithms for

both supervised and unsupervised learning
Presents a balanced approach of both theory and practicality while progressing from introductory to advanced analytical techniques

Non-Programmers Tutorial For Python 3 - Josh Cogliati 2018-08-27

This book is a tutorial for the Python 3 programming language designed for someone with no programming experience. Starting from no programming knowledge, the book teaches how to create programs with examples, explanations and exercises.

Programming in Python 3 - Mark Summerfield 2008-12-16

Python 3 is the best version of the language yet: It is more powerful, convenient, consistent, and expressive than ever before. Now, leading Python programmer Mark Summerfield demonstrates how to write code that takes full advantage of Python 3's features and idioms. The first book written from a completely "Python 3" viewpoint, *Programming in Python 3* brings

together all the knowledge you need to write any program, use any standard or third-party Python 3 library, and create new library modules of your own. Summerfield draws on his many years of Python experience to share deep insights into Python 3 development you won't find anywhere else. He begins by illuminating Python's "beautiful heart": the eight key elements of Python you need to write robust, high-performance programs. Building on these core elements, he introduces new topics designed to strengthen your practical expertise—one concept and hands-on example at a time. This book's coverage includes Developing in Python using procedural, object-oriented, and functional programming paradigms Creating custom packages and modules Writing and reading binary, text, and XML files, including optional compression, random access, and text and XML parsing Leveraging advanced data types, collections, control structures, and functions Spreading program workloads across multiple

processes and threads Programming SQL databases and key-value DBM files Utilizing Python's regular expression mini-language and module Building usable, efficient, GUI-based applications Advanced programming techniques, including generators, function and class decorators, context managers, descriptors, abstract base classes, metaclasses, and more Programming in Python 3 serves as both tutorial and language reference, and it is accompanied by extensive downloadable example code—all of it tested with the final version of Python 3 on Windows, Linux, and Mac OS X.

Fluent Python - Luciano Ramalho 2022-03-31 Python's simplicity lets you become productive quickly, but often this means you aren't using everything it has to offer. With the updated edition of this hands-on guide, you'll learn how to write effective, modern Python 3 code by leveraging its best ideas. Don't waste time bending Python to fit patterns you learned in other languages. Discover and apply idiomatic

Python 3 features beyond your past experience. Author Luciano Ramalho guides you through Python's core language features and libraries and teaches you how to make your code shorter, faster, and more readable. Featuring major updates throughout the book, Fluent Python, second edition, covers: Special methods: The key to the consistent behavior of Python objects Data structures: Sequences, dicts, sets, Unicode, and data classes Functions as objects: First-class functions, related design patterns, and type hints in function declarations Object-oriented idioms: Composition, inheritance, mixins, interfaces, operator overloading, static typing and protocols Control flow: Context managers, generators, coroutines, async/await, and thread/process pools Metaprogramming: Properties, attribute descriptors, class decorators, and new class metaprogramming hooks that are simpler than metaclasses. **Advanced Guide to Python 3 Programming** - John Hunt 2019-09-18

Advanced Guide to Python 3 Programming delves deeply into a host of subjects that you need to understand if you are to develop sophisticated real-world programs. Each topic is preceded by an introduction followed by more advanced topics, along with numerous examples, that take you to an advanced level. There are nine different sections within the book covering Computer Graphics (including GUIs), Games, Testing, File Input and Output, Databases Access, Logging, Concurrency and Parallelism, Reactive programming, and Networking. Each section is self-contained and can either be read on its own or as part of the book as a whole. This book is aimed at the those who have learnt the basics of the Python 3 language but want to delve deeper into Python's eco system of additional libraries and modules, to explore concurrency and parallelism, to create impressive looking graphical interfaces, to work with databases and files and to provide professional logging facilities.

The Hitchhiker's Guide to Python - Kenneth Reitz 2016-08-30

The Hitchhiker's Guide to Python takes the journeyman Pythonista to true expertise. More than any other language, Python was created with the philosophy of simplicity and parsimony. Now 25 years old, Python has become the primary or secondary language (after SQL) for many business users. With popularity comes diversity—and possibly dilution. This guide, collaboratively written by over a hundred members of the Python community, describes best practices currently used by package and application developers. Unlike other books for this audience, The Hitchhiker's Guide is light on reusable code and heavier on design philosophy, directing the reader to excellent sources that already exist.

Scribus 1.3.5 Beginner's Guide - Cedric Gemy 2010-12-07

Create optimum page layouts for your documents using productive tools of Scribus.

Learn Python 3 the Hard Way - Zed A. Shaw

2017-06-26

You Will Learn Python 3! Zed Shaw has perfected the world's best system for learning Python 3. Follow it and you will succeed—just like the millions of beginners Zed has taught to date! You bring the discipline, commitment, and persistence; the author supplies everything else. In *Learn Python 3 the Hard Way*, you'll learn Python by working through 52 brilliantly crafted exercises. Read them. Type their code precisely. (No copying and pasting!) Fix your mistakes. Watch the programs run. As you do, you'll learn how a computer works; what good programs look like; and how to read, write, and think about code. Zed then teaches you even more in 5+ hours of video where he shows you how to break, fix, and debug your code—live, as he's doing the exercises. Install a complete Python environment Organize and write code Fix and break code Basic mathematics Variables Strings and text Interact with users Work with files

Looping and logic Data structures using lists and dictionaries Program design Object-oriented programming Inheritance and composition Modules, classes, and objects Python packaging Automated testing Basic game development Basic web development It'll be hard at first. But soon, you'll just get it—and that will feel great! This course will reward you for every minute you put into it. Soon, you'll know one of the world's most powerful, popular programming languages. You'll be a Python programmer. This Book Is Perfect For Total beginners with zero programming experience Junior developers who know one or two languages Returning professionals who haven't written code in years Seasoned professionals looking for a fast, simple, crash course in Python 3

Python Tutorial - Guido van Rossum

2018-02-03

The Python Tutorial introduces the reader informally to the basic concepts and features of the Python language and system. It helps to have

a Python interpreter handy for hands-on experience, but all examples are self-contained, so the tutorial can be read off-line as well. Python is an easy to learn, powerful programming language. It has efficient high-level data structures and a simple but effective approach to object-oriented programming. Python's elegant syntax and dynamic typing, together with its interpreted nature, make it an ideal language for scripting and rapid application development in many areas on most platforms. The Python interpreter and the extensive standard library are freely available in source or binary form for all major platforms from the Python Web site, <https://www.python.org/>, and may be freely distributed. The same site also contains distributions of and pointers to many free third party Python modules, programs and tools, and additional documentation. The Python interpreter is easily extended with new functions and data types implemented in C or C++ (or

other languages callable from C). Python is also suitable as an extension language for customizable applications. For a description of standard objects and modules, see [library-index](#). [reference-index](#) gives a more formal definition of the language. To write extensions in C or C++, read [extending-index](#) and [c-api-index](#). There are also several books covering Python in depth. This tutorial does not attempt to be comprehensive and cover every single feature, or even every commonly used feature. Instead, it introduces many of Python's most noteworthy features, and will give you a good idea of the language's flavor and style. After reading it, you will be able to read and write Python modules and programs, and you will be ready to learn more about the various Python library modules described in [library-index](#).

[Automate the Boring Stuff with Python, 2nd Edition](#) - Al Sweigart 2019-11-12

The second edition of this best-selling Python book (over 500,000 copies sold!) uses Python 3

to teach even the technically uninclined how to write programs that do in minutes what would take hours to do by hand. There is no prior programming experience required and the book is loved by liberal arts majors and geeks alike. If you've ever spent hours renaming files or updating hundreds of spreadsheet cells, you know how tedious tasks like these can be. But what if you could have your computer do them for you? In this fully revised second edition of the best-selling classic *Automate the Boring Stuff with Python*, you'll learn how to use Python to write programs that do in minutes what would take you hours to do by hand--no prior programming experience required. You'll learn the basics of Python and explore Python's rich library of modules for performing specific tasks, like scraping data off websites, reading PDF and Word documents, and automating clicking and typing tasks. The second edition of this international fan favorite includes a brand-new chapter on input validation, as well as tutorials

on automating Gmail and Google Sheets, plus tips on automatically updating CSV files. You'll learn how to create programs that effortlessly perform useful feats of automation to:

- Search for text in a file or across multiple files
- Create, update, move, and rename files and folders
- Search the Web and download online content
- Update and format data in Excel spreadsheets of any size
- Split, merge, watermark, and encrypt PDFs
- Send email responses and text notifications
- Fill out online forms

Step-by-step instructions walk you through each program, and updated practice projects at the end of each chapter challenge you to improve those programs and use your newfound skills to automate similar tasks. Don't spend your time doing work a well-trained monkey could do. Even if you've never written a line of code, you can make your computer do the grunt work. Learn how in *Automate the Boring Stuff with Python, 2nd Edition*.

Artificial Intelligence with Python - Prateek Joshi

2017-01-27

Build real-world Artificial Intelligence applications with Python to intelligently interact with the world around you About This Book Step into the amazing world of intelligent apps using this comprehensive guide Enter the world of Artificial Intelligence, explore it, and create your own applications Work through simple yet insightful examples that will get you up and running with Artificial Intelligence in no time Who This Book Is For This book is for Python developers who want to build real-world Artificial Intelligence applications. This book is friendly to Python beginners, but being familiar with Python would be useful to play around with the code. It will also be useful for experienced Python programmers who are looking to use Artificial Intelligence techniques in their existing technology stacks. What You Will Learn Realize different classification and regression techniques Understand the concept of clustering and how to use it to automatically segment data

See how to build an intelligent recommender system Understand logic programming and how to use it Build automatic speech recognition systems Understand the basics of heuristic search and genetic programming Develop games using Artificial Intelligence Learn how reinforcement learning works Discover how to build intelligent applications centered on images, text, and time series data See how to use deep learning algorithms and build applications based on it In Detail Artificial Intelligence is becoming increasingly relevant in the modern world where everything is driven by technology and data. It is used extensively across many fields such as search engines, image recognition, robotics, finance, and so on. We will explore various real-world scenarios in this book and you'll learn about various algorithms that can be used to build Artificial Intelligence applications. During the course of this book, you will find out how to make informed decisions about what algorithms to use

in a given context. Starting from the basics of Artificial Intelligence, you will learn how to develop various building blocks using different data mining techniques. You will see how to implement different algorithms to get the best possible results, and will understand how to apply them to real-world scenarios. If you want to add an intelligence layer to any application that's based on images, text, stock market, or some other form of data, this exciting book on Artificial Intelligence will definitely be your guide! Style and approach This highly practical book will show you how to implement Artificial Intelligence. The book provides multiple examples enabling you to create smart applications to meet the needs of your organization. In every chapter, we explain an algorithm, implement it, and then build a smart application.

Treading on Python Volume 1 - Matt Harrison
2012-05-23

Treading on Python is designed to bring

developers and others who are anxious to learn Python up to speed quickly. Not only does it teach the basics of syntax, but it condenses years of experience. You will learn warts, gotchas, best practices and hints that have been gleaned through the years in days. You will hit the ground running and running in the right way.

Flask Web Development - Miguel Grinberg
2018-03-05

Take full creative control of your web applications with Flask, the Python-based microframework. With the second edition of this hands-on book, you'll learn the framework from the ground up by developing, step-by-step, a real-world project created by author Miguel Grinberg. This refreshed edition accounts for important technology changes that have occurred in the past three years. You'll learn the framework's core functionality, as well as how to extend applications with advanced web techniques such as database migration and web

service communication. The first part of each chapter provides you with reference and background for the topic in question, while the second part guides you through a hands-on implementation of the topic. If you have Python experience, this book shows you how to take advantage of the creative freedom Flask provides.

A Primer on Scientific Programming with Python - Hans Petter Langtangen 2016-07-28

The book serves as a first introduction to computer programming of scientific applications, using the high-level Python language. The exposition is example and problem-oriented, where the applications are taken from mathematics, numerical calculus, statistics, physics, biology and finance. The book teaches "Matlab-style" and procedural programming as well as object-oriented programming. High school mathematics is a required background and it is advantageous to study classical and numerical one-variable

calculus in parallel with reading this book. Besides learning how to program computers, the reader will also learn how to solve mathematical problems, arising in various branches of science and engineering, with the aid of numerical methods and programming. By blending programming, mathematics and scientific applications, the book lays a solid foundation for practicing computational science. From the reviews: Langtangen ... does an excellent job of introducing programming as a set of skills in problem solving. He guides the reader into thinking properly about producing program logic and data structures for modeling real-world problems using objects and functions and embracing the object-oriented paradigm. ... Summing Up: Highly recommended. F. H. Wild III, Choice, Vol. 47 (8), April 2010 Those of us who have learned scientific programming in Python 'on the streets' could be a little jealous of students who have the opportunity to take a course out of Langtangen's Primer." John D.

Cook, The Mathematical Association of America, September 2011 This book goes through Python in particular, and programming in general, via tasks that scientists will likely perform. It contains valuable information for students new to scientific computing and would be the perfect bridge between an introduction to programming and an advanced course on numerical methods or computational science. Alex Small, IEEE, CiSE Vol. 14 (2), March /April 2012 “This fourth edition is a wonderful, inclusive textbook that covers pretty much everything one needs to know to go from zero to fairly sophisticated scientific programming in Python...” Joan Horvath, Computing Reviews, March 2015

Applied Unsupervised Learning with Python

- Benjamin Johnston 2019-05-28

Design clever algorithms that can uncover interesting structures and hidden relationships in unstructured, unlabeled data Key Features Learn how to select the most suitable Python library to solve your problem Compare k-

Nearest Neighbor (k-NN) and non-parametric methods and decide when to use them Delve into the applications of neural networks using real-world datasets Book Description Unsupervised learning is a useful and practical solution in situations where labeled data is not available. Applied Unsupervised Learning with Python guides you on the best practices for using unsupervised learning techniques in tandem with Python libraries and extracting meaningful information from unstructured data. The course begins by explaining how basic clustering works to find similar data points in a set. Once you are well versed with the k-means algorithm and how it operates, you’ll learn what dimensionality reduction is and where to apply it. As you progress, you’ll learn various neural network techniques and how they can improve your model. While studying the applications of unsupervised learning, you will also understand how to mine topics that are trending on Twitter and Facebook and build a news recommendation

engine for users. You will complete the course by challenging yourself through various interesting activities such as performing a Market Basket Analysis and identifying relationships between different merchandises. By the end of this course, you will have the skills you need to confidently build your own models using Python. What you will learn

Understand the basics and importance of clustering

Build k-means, hierarchical, and DBSCAN clustering algorithms from scratch with built-in packages

Explore dimensionality reduction and its applications

Use scikit-learn (sklearn) to implement and analyse principal component analysis (PCA)

on the Iris dataset

Employ Keras to build autoencoder models for the CIFAR-10 dataset

Apply the Apriori algorithm with machine learning extensions (Mlxtend) to study transaction data

Who this book is for

This course is designed for developers, data scientists, and machine learning enthusiasts who are interested in unsupervised learning. Some familiarity with

Python programming along with basic knowledge of mathematical concepts including exponents, square roots, means, and medians will be beneficial.

Learning Python Networking - José Manuel Ortega 2019-03-29

Achieve improved network programmability and automation by leveraging powerful network programming concepts, algorithms, and tools

Key Features

Deal with remote network servers using SSH, FTP, SNMP and LDAP protocols.

Design multi threaded and event-driven architectures for asynchronous servers programming.

Leverage your Python programming skills to build powerful network applications

Book Description

Network programming has always been a demanding task. With full-featured and well-documented libraries all the way up the stack, Python makes network programming the enjoyable experience it should be. Starting with a walk through of today's major networking protocols, through this

book, you'll learn how to employ Python for network programming, how to request and retrieve web resources, and how to extract data in major formats over the web. You will utilize Python for emailing using different protocols, and you'll interact with remote systems and IP and DNS networking. You will cover the connection of networking devices and configuration using Python 3.7, along with cloud-based network management tasks using Python. As the book progresses, socket programming will be covered, followed by how to design servers, and the pros and cons of multithreaded and event-driven architectures. You'll develop practical clientside applications, including web API clients, email clients, SSH, and FTP. These applications will also be implemented through existing web application frameworks. What you will learnExecute Python modules on networking toolsAutomate tasks regarding the analysis and extraction of information from a networkGet to grips with asynchronous programming modules

available in PythonGet to grips with IP address manipulation modules using Python programmingUnderstand the main frameworks available in Python that are focused on web applicationManipulate IP addresses and perform CIDR calculationsWho this book is for If you're a Python developer or a system administrator with Python experience and you're looking to take your first steps in network programming, then this book is for you. If you're a network engineer or a network professional aiming to be more productive and efficient in networking programmability and automation then this book would serve as a useful resource. Basic knowledge of Python is assumed.

Python for Everybody - Charles R. Severance
2016-04-09

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.

Algebraic Graph Algorithms - K. Erciyes
2021-12-19

This textbook discusses the design and implementation of basic algebraic graph algorithms, and algebraic graph algorithms for complex networks, employing matroids

whenever possible. The text describes the design of a simple parallel matrix algorithm kernel that can be used for parallel processing of algebraic graph algorithms. Example code is presented in pseudocode, together with case studies in Python and MPI. The text assumes readers have a background in graph theory and/or graph algorithms.

Python Basics - Dan Bader 2021-03-16

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
Python for Data Analysis - Wes McKinney

2017-09-25

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

informative visualizations with matplotlib Apply the pandas groupby facility to slice, dice, and summarize datasets Analyze and manipulate regular and irregular time series data Learn how to solve real-world data analysis problems with thorough, detailed examples

Python for Bioinformatics - Sebastian Bassi
2017-08-07

In today's data driven biology, programming knowledge is essential in turning ideas into testable hypothesis. Based on the author's extensive experience, Python for Bioinformatics, Second Edition helps biologists get to grips with the basics of software development. Requiring no prior knowledge of programming-related concepts, the book focuses on the easy-to-use, yet powerful, Python computer language. This new edition is updated throughout to Python 3 and is designed not just to help scientists master the basics, but to do more in less time and in a reproducible way. New developments added in this edition include NoSQL databases, the

Anaconda Python distribution, graphical libraries like Bokeh, and the use of Github for collaborative development.

Python Data Mining Quick Start Guide - Nathan Greeneltch
2019-04-25

Explore the different data mining techniques using the libraries and packages offered by Python Key Features Grasp the basics of data loading, cleaning, analysis, and visualization Use the popular Python libraries such as NumPy, pandas, matplotlib, and scikit-learn for data mining Your one-stop guide to build efficient data mining pipelines without going into too much theory Book Description Data mining is a necessary and predictable response to the dawn of the information age. It is typically defined as the pattern and/ or trend discovery phase in the data mining pipeline, and Python is a popular tool for performing these tasks as it offers a wide variety of tools for data mining. This book will serve as a quick introduction to the concept of data mining and putting it to practical use

with the help of popular Python packages and libraries. You will get a hands-on demonstration of working with different real-world datasets and extracting useful insights from them using popular Python libraries such as NumPy, pandas, scikit-learn, and matplotlib. You will then learn the different stages of data mining such as data loading, cleaning, analysis, and visualization. You will also get a full conceptual description of popular data transformation, clustering, and classification techniques. By the end of this book, you will be able to build an efficient data mining pipeline using Python without any hassle. What you will learn

- Explore the methods for summarizing datasets and visualizing/plotting data
- Collect and format data for analytical work
- Assign data points into groups and visualize clustering patterns
- Learn how to predict continuous and categorical outputs for data
- Clean, filter noise from, and reduce the dimensions of data
- Serialize a data processing model using scikit-learn's pipeline feature

Deploy the data processing model using Python's pickle module

Who this book is for Python developers interested in getting started with data mining will love this book. Budding data scientists and data analysts looking to quickly get to grips with practical data mining with Python will also find this book to be useful. Knowledge of Python programming is all you need to get started.

Python For Dummies - Stef Maruch 2006-09-14

Python is one of the most powerful, easy-to-read programming languages around, but it does have its limitations. This general purpose, high-level language that can be extended and embedded is a smart option for many programming problems, but a poor solution to others. *Python For Dummies* is the quick-and-easy guide to getting the most out of this robust program. This hands-on book will show you everything you need to know about building programs, debugging code, and simplifying development, as well as defining what actions it

can perform. You'll wrap yourself around all of its advanced features and become an expert Python user in no time. This guide gives you the tools you need to: Master basic elements and syntax Document, design, and debug programs Work with strings like a pro Direct a program with control structures Integrate integers, complex numbers, and modules Build lists, stacks, and queues Create an organized dictionary Handle functions, data, and namespace Construct applications with modules and packages Call, create, extend, and override classes Access the Internet to enhance your library Understand the new features of Python 2.5 Packed with critical idioms and great resources to maximize your productivity, Python For Dummies is the ultimate one-stop information guide. In a matter of minutes you'll be familiar with Python's building blocks, strings, dictionaries, and sets; and be on your way to writing the program that you've dreamed about!

Illustrated Guide to Python 3 - Matt Harrison
2017-11-03

Introducing Your Guide to Learning Python Illustrated Guide to Learning Python is designed to bring developers and others who are anxious to learn Python up to speed quickly. Not only does it teach the basics of syntax, but it condenses years of experience. You will learn warts, gotchas, best practices and hints that have been gleaned through the years in days. You will hit the ground running and running in the right way. Learn Python Quickly Python is an incredible language. It is powerful and applicable in many areas. It is used for automation of simple or complex tasks, numerical processing, web development, interactive games and more. Whether you are a programmer coming to Python from another language, managing Python programmers or wanting to learn to program, it makes sense to cut to the chase and learn Python the right way. You could scour blogs, websites and much

longer tomes if you have time. Treading on Python lets you learn the hints and tips to be Pythonic quickly. Packed with Useful Hints and Tips You'll learn the best practices without wasting time searching or trying to force Python to be like other languages. I've collected all the gems I've gleaned over years of writing and teaching Python for you. A No Nonsense Guide to Mastering Basic Python Python is a programming language that lets you work more quickly and integrate your systems more effectively. You can learn to use Python and see almost immediate gains in productivity and lower maintenance costs. What you will learn: Distilled best practices and tips How interpreted languages work Using basic types such as Strings, Integers, and Floats Best practices for using the interpreter during development The difference between mutable and immutable data Sets, Lists, and Dictionaries, and when to use each Gathering keyboard input How to define a class Looping constructs Handling Exceptions in code

Slicing sequences Creating modular code Using libraries Laying out code Community prescribed conventions

Dive Into Python - Mark Pilgrim 2004-07-12

* Quick start to learning python—very example oriented approach * Book has its own Web site established by the author:

<http://diveintopython.org/> Author is well known in the Open Source community and the book has a unique quick approach to learning an object oriented language.

HT THINK LIKE A COMPUTER SCIENTIST - Jeffrey Elkner 2016-10-04

The goal of this book is to teach you to think like a computer scientist. This way of thinking combines some of the best features of mathematics, engineering, and natural science. Like mathematicians, computer scientists use formal languages to denote ideas (specifically computations). Like engineers, they design things, assembling components into systems and evaluating tradeoffs among alternatives. Like

scientists, they observe the behavior of complex systems, form hypotheses, and test predictions. The single most important skill for a computer scientist is problem solving. Problem solving means the ability to formulate problems, think creatively about solutions, and express a solution clearly and accurately. As it turns out, the process of learning to program is an

excellent opportunity to practice problem-solving skills. That's why this chapter is called, The way of the program. On one level, you will be learning to program, a useful skill by itself. On another level, you will use programming as a means to an end. As we go along, that end will become clearer.