

The Python Workbook A Brief Introduction With Exercises And Solutions By Ben Stephenson 28 Feb 2015 Hardcover

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Stephenson 28 Feb 2015 Hardcover is universally compatible with any devices to read

Python for Unix and Linux System

Administration - Noah Gift 2008-08-22

Python is an ideal language for solving problems, especially in Linux and Unix networks. With this pragmatic book, administrators can review various tasks that often occur in the management of these systems, and learn how Python can provide a more efficient and less painful way to handle them. Each chapter in Python for Unix and Linux System Administration presents a particular administrative issue, such as concurrency or data backup, and presents Python solutions through hands-on examples. Once you finish this book, you'll be able to develop your own set of command-line utilities with Python to tackle a wide range of problems. Discover how this language can help you: Read text files and extract information Run tasks concurrently using

the threading and forking options Get information from one process to another using network facilities Create clickable GUIs to handle large and complex utilities Monitor large clusters of machines by interacting with SNMP programmatically Master the IPython Interactive Python shell to replace or augment Bash, Korn, or Z-Shell Integrate Cloud Computing into your infrastructure, and learn to write a Google App Engine Application Solve unique data backup challenges with customized scripts Interact with MySQL, SQLite, Oracle, Postgres, Django ORM, and SQLAlchemy With this book, you'll learn how to package and deploy your Python applications and libraries, and write code that runs equally well on multiple Unix platforms. You'll also learn about several Python-related technologies that will make your life much easier.

Deep Learning for Coders with fastai and PyTorch - Jeremy Howard 2020-06-29

Deep learning is often viewed as the exclusive domain of math PhDs and big tech companies. But as this hands-on guide demonstrates, programmers comfortable with Python can achieve impressive results in deep learning with little math background, small amounts of data, and minimal code. How? With fastai, the first library to provide a consistent interface to the most frequently used deep learning applications. Authors Jeremy Howard and Sylvain Gugger, the creators of fastai, show you how to train a model on a wide range of tasks using fastai and PyTorch. You'll also dive progressively further into deep learning theory to gain a complete understanding of the algorithms behind the scenes. Train models in computer vision, natural language processing, tabular data, and collaborative filtering Learn the latest deep learning techniques that matter most in practice Improve accuracy, speed, and reliability by

understanding how deep learning models work Discover how to turn your models into web applications Implement deep learning algorithms from scratch Consider the ethical implications of your work Gain insight from the foreword by PyTorch cofounder, Soumith Chintala

The Rust Programming Language (Covers Rust 2018) - Steve Klabnik 2019-09-03

The official book on the Rust programming language, written by the Rust development team at the Mozilla Foundation, fully updated for Rust 2018. The Rust Programming Language is the official book on Rust: an open source systems programming language that helps you write faster, more reliable software. Rust offers control over low-level details (such as memory usage) in combination with high-level ergonomics, eliminating the hassle traditionally associated with low-level languages. The authors of The Rust Programming Language, members of the Rust Core Team, share their knowledge

and experience to show you how to take full advantage of Rust's features--from installation to creating robust and scalable programs. You'll begin with basics like creating functions, choosing data types, and binding variables and then move on to more advanced concepts, such as:

- Ownership and borrowing, lifetimes, and traits
- Using Rust's memory safety guarantees to build fast, safe programs
- Testing, error handling, and effective refactoring
- Generics, smart pointers, multithreading, trait objects, and advanced pattern matching
- Using Cargo, Rust's built-in package manager, to build, test, and document your code and manage dependencies
- How best to use Rust's advanced compiler with compiler-led programming techniques

You'll find plenty of code examples throughout the book, as well as three chapters dedicated to building complete projects to test your learning: a number guessing game, a Rust implementation of a command line tool, and a multithreaded server. New to this edition: An

extended section on Rust macros, an expanded chapter on modules, and appendixes on Rust development tools and editions.

PYTHON PROGRAMMING - Clive Campbell
2020-12-23

THIS BOOK INCLUDES: Python for beginners
PYTHON PROGRAMMING - The Ultimate Guide from beginners to Experts
PYTHON PROGRAMMING - The Ultimate Expert Guide .
You Are About to Discover The Ins And Outs Of Python Programming Language From The Basics To Its Application In Advanced Computing Concepts Like Machine Learning, Computer Science, Artificial Intelligence And More! Python is now: The preferred programming language for advanced computing concepts like data analytics, machine learning, artificial intelligence, big data, computer science and more The most taught first programming language One of the most common used programming languages in the world The programming language that has been used to

write code for important processes on some of the most popular websites in the world like Facebook, Dropbox, Google Maps, YouTube, Instagram and many others Do you know why? The short answer is "because it works". And the long answer is this: "It is highly scalable, easy to use, with a rich powerful library that make it possible to use it for everything from writing simple code to advanced computing, a very active online community, a large collection of third party modules and packages as well as the fact that it also supports object oriented development!" By virtue that you are reading this, it is clear you want to start learning programming with python, from the basics all the way to the advanced computing stuff. And this 3 in 1 book is about to show you the ins and outs of python to do just that. I know you have lots of questions going through your mind... Where exactly do you start as you learn python? Why should you make python your programming language of choice whether you are a complete

beginner to programming or not? How do you write your first program with python? How can you start using python for advanced computing stuff like artificial intelligence, robotics, machine learning, data analytics, big data, data science and the likes? If you have these and other related questions, this 3 in 1 book is for you so keep reading. More precisely, this 3 in 1 book will teach you: An in-depth analysis of python; what it is and how to install it on different operating systems How you stand to benefit by learning Python Why python is considered the most suitable programming language for advanced computing such as in machine learning, deep learning, artificial intelligence etc. Steps to take to write your very first program on python Step by step process to perform data analysis with python Everything you need to know about variables in python The most suitable python libraries you should use for advanced computing How to leverage the power of python to handle a variety of machine

learning algorithms How you can insert comments in python to keep your code clean How to work with files on python Simple projects to get you started with python Varied data types used in python Powerful tips for successful use of python and how to handle any problems in code that may arise And MUCH MORE! Even if this is your first programming language to learn, you are in safe hands, as this book will break down the seemingly complex terms and concepts using simple, straightforward language to enable you put what you learn into action. Click Buy Now to get started!

Head First Python - Paul Barry 2016-11-21
Want to learn the Python language without slogging your way through how-to manuals? With *Head First Python*, you'll quickly grasp Python's fundamentals, working with the built-in data structures and functions. Then you'll move on to building your very own webapp, exploring database management, exception handling, and

data wrangling. If you're intrigued by what you can do with context managers, decorators, comprehensions, and generators, it's all here. This second edition is a complete learning experience that will help you become a bonafide Python programmer in no time. Why does this book look so different? Based on the latest research in cognitive science and learning theory, *Head First Python* uses a visually rich format to engage your mind, rather than a text-heavy approach that puts you to sleep. Why waste your time struggling with new concepts? This multi-sensory learning experience is designed for the way your brain really works.
Python Workbook - Jamie Chan 2019-08-23
Python Workbook for Beginners with Hands-On Projects Are you looking for a hands-on approach to learn Python fast? Or perhaps you have just completed a Python course and are looking for practice questions to test your Python skills. Do you have problems with some Python concepts and are looking for a workbook to provide you

with more questions and solutions to learn from? This workbook is for you. This book is designed to be the accompanying workbook for the book "Learn Python In One Day and Learn It Well (2nd Edition)" by the same author. It can also be used as a standalone workbook for you to test and improve your knowledge of the Python syntax. What this book offers... Carefully designed questions Each question in this workbook is crafted to help you gradually build your programming skills, focusing on one or two concepts at a time and increasing in level of difficulty as we progress through the chapters. Clear and Easy to Understand Solutions All solutions in this book are extensively tested by a group of beta readers. The solutions provided are simplified as much as possible so that they can serve as examples for you to refer to when you are learning a new syntax. Two Projects to Consolidate Your Learning This workbook also includes two projects at the end to help you consolidate your

learning. While the individual chapters prior to the projects help you learn one concept at a time, these two projects require the application of multiple concepts covered in previous chapters and allow you to see how everything works together. What this book aims to do... This workbook is written with one goal in mind - to help new programmers overcome their initial obstacles to learning. A lot of times, when new programmers look at code written by other programmers, they tend to feel intimidated as a lot of the code looks complicated to them. A complete program written by other programmers incorporates many different concepts. The goal of this workbook is to isolate the different concepts so that new programmers can gradually gain competency in the fundamentals of the language before working on bigger projects at the end of the book. Programming does not have to be scary or frustrating when you take one step at a time. Ready to start practicing and building your

Python skills? Click the BUY button now to download this workbook. Topics Covered: - Variables and Mathematical Operations in Python- Common data types, including integers, floats, strings- Lists, Tuples and Dictionaries- String Formatting- Accepting user inputs and displaying outputs- Comparison and Condition Statements- Control flow tools in Python- How to handle errors and exceptions- What are functions and modules?- How to define your own functions and modules- How to work with external files- Object Oriented Programming Concepts- Classes, Subclasses and Inheritance..and more...Click the BUY button now to start learning and practicing your Python skills. Learn it fast and learn it well.

[Learn Python Programming](#) - Fabrizio Romano
2021-10-29

Get up and running with Python 3.9 through concise tutorials and practical projects in this fully updated third edition Key Features Extensively revised with richer

examples, Python 3.9 syntax, and new chapters on APIs and packaging and distributing Python code Discover how to think like a Python programmer Learn the fundamentals of Python through real-world projects in API development, GUI programming, and data science Book Description Learn Python Programming, Third Edition is both a theoretical and practical introduction to Python, an extremely flexible and powerful programming language that can be applied to many disciplines. This book will make learning Python easy and give you a thorough understanding of the language. You'll learn how to write programs, build modern APIs, and work with data by using renowned Python data science libraries. This revised edition covers the latest updates on API management, packaging applications, and testing. There is also broader coverage of context managers and an updated data science chapter. The book empowers you to take ownership of writing your software and become independent in fetching the resources

you need. You will have a clear idea of where to go and how to build on what you have learned from the book. Through examples, the book explores a wide range of applications and concludes by building real-world Python projects based on the concepts you have learned. What you will learn

Get Python up and running on Windows, Mac, and Linux

Write elegant, reusable, and efficient code in any situation

Avoid common pitfalls like duplication, complicated design, and over-engineering

Understand when to use the functional or object-oriented approach to programming

Build a simple API with FastAPI and program GUI applications with Tkinter

Get an initial overview of more complex topics such as data persistence and cryptography

Fetch, clean, and manipulate data, making efficient use of Python's built-in data structures

Who this book is for

This book is for everyone who wants to learn Python from scratch, as well as experienced programmers looking for a

reference book. Prior knowledge of basic programming concepts will help you follow along, but it's not a prerequisite.

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.

Building a Second Brain - Tiago Forte
2022-06-14

A revolutionary approach to enhancing productivity, creating flow, and vastly increasing your ability to capture, remember, and benefit from the unprecedented amount of information all around us. For the first time in history, we have instantaneous access to the world's knowledge. There has never been a better time to learn, to contribute, and to improve ourselves.

Yet, rather than feeling empowered, we are often left feeling overwhelmed by this constant influx of information. The very knowledge that was supposed to set us free has instead led to the paralyzing stress of believing we'll never know or remember enough. Now, this eye-opening and accessible guide shows how you can easily create your own personal system for knowledge management, otherwise known as a Second Brain. As a trusted and organized digital repository of your most valued ideas, notes, and creative work synced across all your devices and platforms, a Second Brain gives you the confidence to tackle your most important projects and ambitious goals. Discover the full potential of your ideas and translate what you know into more powerful, more meaningful improvements in your work and life by Building a Second Brain.

Python Projects - Laura Cassell 2014-12-04
A guide to completing Python projects for those ready to take their skills to the next level Python

Projects is the ultimate resource for the Python programmer with basic skills who is ready to move beyond tutorials and start building projects. The preeminent guide to bridge the gap between learning and doing, this book walks readers through the "where" and "how" of real-world Python programming with practical, actionable instruction. With a focus on real-world functionality, Python Projects details the ways that Python can be used to complete daily tasks and bring efficiency to businesses and individuals alike. Python Projects is written specifically for those who know the Python syntax and lay of the land, but may still be intimidated by larger, more complex projects. The book provides a walk-through of the basic set-up for an application and the building and packaging for a library, and explains in detail the functionalities related to the projects. Topics include: *How to maximize the power of the standard library modules *Where to get third party libraries, and the best practices for

utilization *Creating, packaging, and reusing libraries within and across projects *Building multi-layered functionality including networks, data, and user interfaces *Setting up development environments and using virtualenv, pip, and more Written by veteran Python trainers, the book is structured for easy navigation and logical progression that makes it ideal for individual, classroom, or corporate training. For Python developers looking to apply their skills to real-world challenges, Python Projects is a goldmine of information and expert insight.

Python for Excel - Felix Zumstein 2021-03-04 While Excel remains ubiquitous in the business world, recent Microsoft feedback forums are full of requests to include Python as an Excel scripting language. In fact, it's the top feature requested. What makes this combination so compelling? In this hands-on guide, Felix Zumstein--creator of xlwings, a popular open source package for automating Excel with

Python--shows experienced Excel users how to integrate these two worlds efficiently. Excel has added quite a few new capabilities over the past couple of years, but its automation language, VBA, stopped evolving a long time ago. Many Excel power users have already adopted Python for daily automation tasks. This guide gets you started. Use Python without extensive programming knowledge Get started with modern tools, including Jupyter notebooks and Visual Studio code Use pandas to acquire, clean, and analyze data and replace typical Excel calculations Automate tedious tasks like consolidation of Excel workbooks and production of Excel reports Use xlwings to build interactive Excel tools that use Python as a calculation engine Connect Excel to databases and CSV files and fetch data from the internet using Python code Use Python as a single tool to replace VBA, Power Query, and Power Pivot
Python 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 3 - Assad Patel 2020-01-31

I was very frustrated with IT Books. The main issue with all book dealing with Python is poorly-leveled. So I've tried to make a book for everyone. You don't need any background to understand it. Python is for everyone.

The Python Standard Library by Example - Doug Hellmann 2011-06-01

"Hellmann's writing has become an indispensable resource for me and many others as it fills a critical gap in Python Documentation with examples." — Jesse Noller, Python Core Developer and PSF Board Member Master the Powerful Python Standard Library through Real Code Examples The Python Standard Library contains hundreds of modules for interacting with the operating system, interpreter, and

Internet—all extensively tested and ready to jump-start your application development. The Python Standard Library by Example introduces virtually every important area of the Python 2.7 library through concise, stand-alone source code/output examples, designed for easy learning and reuse. Building on his popular Python Module of the Week blog series, author and Python expert Doug Hellmann focuses on "showing" not "telling." He explains code behavior through downloadable examples that fully demonstrate each feature. You'll find practical code for working with text, data types, algorithms, math, file systems, networking, the Internet, XML, email, cryptography, concurrency, runtime and language services, and much more. Each section fully covers one module, and links to valuable additional resources, making this book an ideal tutorial and reference. Coverage includes Manipulating text with string, textwrap, re, and difflib Implementing data structures: collections, array,

queue, struct, copy, and more Reading, writing, and manipulating files and directories Regular expression pattern matching Exchanging data and providing for persistence Archiving and data compression Managing processes and threads Using application “building blocks”: parsing command-line options, prompting for passwords, scheduling events, and logging Testing, debugging, and compilation Controlling runtime configuration Using module and package utilities If you’re new to Python, this book will quickly give you access to a whole new world of functionality. If you’ve worked with Python before, you’ll discover new, powerful solutions and better ways to use the modules you’ve already tried.

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.

Python Programming for Beginners - James Deep 2019-11-03

Looking for a simple, complete and effective

book on Python? Do you want to approach its programming language? If yes, then keep reading. Have you had a dream to learn how to work with a coding language, to handle some of the different parts of your website, your computer, or even create your own application? Have you taken a look at some of the older coding languages and felt scared to even get started because they looked too difficult? The Python language is the right option for you to choose when you want to learn a language, and you want to make sure that it is as simple as possible. This updated Python Programming book will assist you quickly write efficient and high-quality Python programs. It is the best way to begin, whether you are a newbie to programming or a professional with prior experience in other programming niches. Get an in-depth and detailed introduction to the Python programming language using this hands-on guide! It is equipped with many exercises, helpful illustrations, and quizzes easy-to-follow.

This self-paced book gets you on the go with both Python - the latest releases in the 3.X and 2.X lines - and all other releases in use today. You will also learn some advanced language characteristics that nowadays have become useful in Python programs. Inside this book you will find: * Python's built-in object types such as numbers and sets * A detailed explanation of data structures * An advanced explanation of clustering with example * Object oriented programming using Python * Functions * Polymorphism * Inheritance * Lists * Tuples * Time and Date * Scope and lifetime of variables * A program for coming up with a simple calculator using Python Language ...and many more amazing and interesting topics! In a matter of a few days you will be familiar with Python's building blocks, such as assets, strings, dictionaries, and tuples; and be on your way to writing any program that you have ever dreamed about! Want to know more? Scroll to the top of the page and click the "buy now" button!

R for Data Science - Hadley Wickham

2016-12-12

Learn how to use R to turn raw data into insight, knowledge, and understanding. This book introduces you to R, RStudio, and the tidyverse, a collection of R packages designed to work together to make data science fast, fluent, and fun. Suitable for readers with no previous programming experience, R for Data Science is designed to get you doing data science as quickly as possible. Authors Hadley Wickham and Garrett Grolemund guide you through the steps of importing, wrangling, exploring, and modeling your data and communicating the results. You'll get a complete, big-picture understanding of the data science cycle, along with basic tools you need to manage the details. Each section of the book is paired with exercises to help you practice what you've learned along the way. You'll learn how to:

Wrangle—transform your datasets into a form convenient for analysis Program—learn powerful

R tools for solving data problems with greater clarity and ease Explore—examine your data, generate hypotheses, and quickly test them Model—provide a low-dimensional summary that captures true "signals" in your dataset Communicate—learn R Markdown for integrating prose, code, and results

[The Python Workbook](#) - Ben Stephenson 2019 This student-friendly textbook encourages the development of programming skills through active practice by focusing on exercises that support hands-on learning. The Python Workbook provides a compendium of 186 exercises, spanning a variety of academic disciplines and everyday situations. Solutions to selected exercises are also provided, supported by brief annotations that explain the technique used to solve the problem, or highlight a specific point of Python syntax. This enhanced new edition has been thoroughly updated and expanded with additional exercises, along with concise introductions that outline the core

concepts needed to solve them. The exercises and solutions require no prior background knowledge, beyond the material covered in a typical introductory Python programming course. Features: Uses an accessible writing style and easy-to-follow structure Includes a mixture of classic exercises from the fields of computer science and mathematics, along with exercises that connect to other academic disciplines Presents the solutions to approximately half of the exercises Provides annotations alongside the solutions, which explain the approach taken to solve the problem and relevant aspects of Python syntax Offers a variety of exercises of different lengths and difficulties Contains exercises that encourage the development of programming skills using if statements, loops, basic functions, lists, dictionaries, files, and recursive functions Undergraduate students enrolled in their first programming course and wishing to enhance their programming abilities will find the

exercises and solutions provided in this book to be ideal for their needs. Dr. Ben Stephenson is a Teaching Professor in the Department of Computer Science at the University of Calgary, AB, Canada. His other publications include the Springer textbook *Fundamentals of Discrete Math for Computer Science: A Problem-Solving Primer*.

[The Python Workbook](#) - Ben Stephenson

2019-07-05

This student-friendly textbook encourages the development of programming skills through active practice by focusing on exercises that support hands-on learning. The Python Workbook provides a compendium of 186 exercises, spanning a variety of academic disciplines and everyday situations. Solutions to selected exercises are also provided, supported by brief annotations that explain the technique used to solve the problem, or highlight a specific point of Python syntax. This enhanced new edition has been thoroughly updated and

expanded with additional exercises, along with concise introductions that outline the core concepts needed to solve them. The exercises and solutions require no prior background knowledge, beyond the material covered in a typical introductory Python programming course. Features: uses an accessible writing style and easy-to-follow structure; includes a mixture of classic exercises from the fields of computer science and mathematics, along with exercises that connect to other academic disciplines; presents the solutions to approximately half of the exercises; provides annotations alongside the solutions, which explain the approach taken to solve the problem and relevant aspects of Python syntax; offers a variety of exercises of different lengths and difficulties; contains exercises that encourage the development of programming skills using if statements, loops, basic functions, lists, dictionaries, files, and recursive functions. Undergraduate students enrolled in their first

programming course and wishing to enhance their programming abilities will find the exercises and solutions provided in this book to be ideal for their needs.

Python Data Science Handbook - Jake

VanderPlas 2016-11-21

For many researchers, Python is a first-class tool mainly because of its libraries for storing, manipulating, and gaining insight from data.

Several resources exist for individual pieces of this data science stack, but only with the Python Data Science Handbook do you get them all—IPython, NumPy, Pandas, Matplotlib, Scikit-Learn, and other related tools. Working scientists and data crunchers familiar with reading and writing Python code will find this comprehensive desk reference ideal for tackling day-to-day issues: manipulating, transforming, and cleaning data; visualizing different types of data; and using data to build statistical or machine learning models. Quite simply, this is the must-have reference for scientific computing

in Python. With this handbook, you'll learn how to use: IPython and Jupyter: provide computational environments for data scientists using Python NumPy: includes the ndarray for efficient storage and manipulation of dense data arrays in Python Pandas: features the DataFrame for efficient storage and manipulation of labeled/columnar data in Python Matplotlib: includes capabilities for a flexible range of data visualizations in Python Scikit-Learn: for efficient and clean Python implementations of the most important and established machine learning algorithms

Python Programming for Beginners - Jason

Cannon 2014-09-01

Python Programming for Beginners doesn't make any assumptions about your background or knowledge of Python or computer programming. You need no prior knowledge to benefit from this book. You will be guided step by step using a logical and systematic approach. As new concepts, commands, or jargon are

encountered they are explained in plain language, making it easy for anyone to understand.--Publisher's description.

Python Workout - Reuven M. Lerner 2020-08-04

The only way to master a skill is to practice. In Python Workout, author Reuven M. Lerner guides you through 50 carefully selected exercises that invite you to flex your programming muscles. As you take on each new challenge, you'll build programming skill and confidence. Summary The only way to master a skill is to practice. In Python Workout, author Reuven M. Lerner guides you through 50 carefully selected exercises that invite you to flex your programming muscles. As you take on each new challenge, you'll build programming skill and confidence. The thorough explanations help you lock in what you've learned and apply it to your own projects. Along the way, Python Workout provides over four hours of video instruction walking you through the solutions to each exercise and dozens of additional exercises

for you to try on your own. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the technology To become a champion Python programmer you need to work out, building mental muscle with your hands on the keyboard. Each carefully selected exercise in this unique book adds to your Python prowess—one important skill at a time. About the book Python Workout presents 50 exercises that focus on key Python 3 features. In it, expert Python coach Reuven Lerner guides you through a series of small projects, practicing the skills you need to tackle everyday tasks. You'll appreciate the clear explanations of each technique, and you can watch Reuven solve each exercise in the accompanying videos. What's inside 50 hands-on exercises and solutions Coverage of all Python data types Dozens more bonus exercises for extra practice About the reader For readers with basic Python knowledge. About the author Reuven M. Lerner teaches Python and data

science to companies around the world. Table of Contents 1 Numeric types 2 Strings 3 Lists and tuples 4 Dictionaries and sets 5 Files 6 Functions 7 Functional programming with comprehensions 8 Modules and packages 9 Objects 10 Iterators and generators

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 cruffy 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 Workbook - Programming Languages Academy 2019-12-30
Can You Learn Python In A Fun And Practical

Way? With This Book, You Can! Do you want to learn one of the most in-demand programming languages of today and start an exciting career in data science, web development, or another field of your choice? Learn Python! Python is easy to read because the code looks a lot like regular English, but don't let this simplicity deceive you: it's one of the most powerful and versatile programming languages out there! In fact, it powers many of your favorite websites and services, including Instagram, Spotify, and even Google! This book takes you on a practical journey through the amazing features of Python. Unlike books that focus on theoretical concepts only, this book will show you how Python is actually used - and encourage you to get creative! Here's what you'll find in this book: Practical programming exercises that will help you apply programming concepts to real-life situations Debugging exercises that will teach you to notice errors in Python code quickly Fun projects that will really test your knowledge and

motivate you to practice even more Valuable tips for mastering Python quickly An answer key to check if you were right Learning the basics of any programming language may seem a bit boring at first, but once you've written your first program that really does something - even if it's just printing text on the screen - your excitement and motivation will become unstoppable and you'll yearn for more and more programming challenges that will hone your skills! This book is a perfect companion for any beginning Python programmer. If you've tried learning Python before but got discouraged by too much theory... this book is guaranteed to rekindle your interest in Python programming! Are you ready to start writing Python apps that really work? Scroll up, click on "Buy Now with 1-Click", and Get Your Copy Now!

Introduction to Scientific Programming with Python - Joakim Sundnes 2020

This open access book offers an initial introduction to programming for scientific and

computational applications using the Python programming language. The presentation style is compact and example-based, making it suitable for students and researchers with little or no prior experience in programming. The book uses relevant examples from mathematics and the natural sciences to present programming as a practical toolbox that can quickly enable readers to write their own programs for data processing and mathematical modeling. These tools include file reading, plotting, simple text analysis, and using NumPy for numerical computations, which are fundamental building blocks of all programs in data science and computational science. At the same time, readers are introduced to the fundamental concepts of programming, including variables, functions, loops, classes, and object-oriented programming. Accordingly, the book provides a sound basis for further computer science and programming studies.

A Python Book - Dave Kuhlman 2011-09

This document is a self learning document for a course in Python programming. This course contains (1) a part for beginners, (2) a discussion of several advanced topics that are of interest to Python programmers, and (3) a Pythonworkbook with lots of exercises.

Learn Python in One Day and Learn It Well - Jamie Chan 2015-01-07

Master Python Programming with a unique Hands-On Project 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. You no longer have to waste your time and money learning Python from lengthy books, expensive online courses or complicated Python tutorials. What this book offers... Python for Beginners Complex concepts are broken down into simple steps to ensure that you can easily master the Python language even if you have never coded before. Carefully Chosen Python

Examples Examples are carefully chosen to illustrate all concepts. In addition, the output for all examples are provided immediately so you do not have to wait till you have access to your computer to test the examples. Learn The Python Programming Language Fast Concepts are presented in a "to-the-point" style to cater to the busy individual. With this book, you can learn Python in just one day and start coding immediately. How is this book different... The best way to learn Python is by doing. This book includes a complete project at the end of the book that requires the application of all the concepts taught previously. Working through the project will not only give you an immense sense of achievement, it'll also help you retain the knowledge and master the language. Are you ready to dip your toes into the exciting world of Python coding? This book is for you. Click the "Add to Cart" button to buy it now. What you'll learn: What is Python? What software you need to code and run Python programs? What are

variables? What mathematical operators are there in Python? What are the common data types in Python? What are Lists and Tuples? How to format strings How to accept user inputs and display outputs How to make decisions with If statements How to control the flow of program with loops How to handle errors and exceptions What are functions and modules? How to define your own functions and modules How to work with external files .. and more... Finally, you'll be guided through a hands-on project that requires the application of all the topics covered. Click the "Add to Cart" button now to start learning Python. Learn it fast and learn it well.

[Practical Python Design Patterns](#) - Wessel Badenhorst 2017-10-17

Become a better, more productive programmer through a series of projects that will help you deeply understand and master each of the design patterns covered. In this book you will learn to write elegant "Pythonic" code to solve common programming problems. You will also

experience design thinking, by identifying design patterns that would be helpful given a specific problem or situation. Python is eating the world. In recent years it has become so much more than a mere object-oriented, scripting language. Design patterns help you think of and solve problems in chunks. They help you to stand on the shoulders of the giants who have come before, instead of having to reinvent the wheel. What You Will Learn Craft cleaner code Increase your effectiveness as a programmer Write more Pythonic code Solve bigger problems Discover optimal solutions to common problems, done in a way that is uniquely Pythonic Who This Book Is For Programmers who are comfortable with Python. It is also guide for people who have mastered other programming languages and who want to make the transition to Python. *Python for Kids* - Jason Briggs 2012-12-12 Python is a powerful, expressive programming language that's easy to learn and fun to use! But books about learning to program in Python can

be kind of dull, gray, and boring, and that's no fun for anyone. Python for Kids brings Python to life and brings you (and your parents) into the world of programming. The ever-patient Jason R. Briggs will guide you through the basics as you experiment with unique (and often hilarious) example programs that feature ravenous monsters, secret agents, thieving ravens, and more. New terms are defined; code is colored, dissected, and explained; and quirky, full-color illustrations keep things on the lighter side. Chapters end with programming puzzles designed to stretch your brain and strengthen your understanding. By the end of the book you'll have programmed two complete games: a clone of the famous Pong and "Mr. Stick Man Races for the Exit"—a platform game with jumps, animation, and much more. As you strike out on your programming adventure, you'll learn how to: -Use fundamental data structures like lists, tuples, and maps -Organize and reuse your code with functions and modules -Use control

structures like loops and conditional statements
-Draw shapes and patterns with Python's turtle module
-Create games, animations, and other graphical wonders with tkinter
Why should serious adults have all the fun? Python for Kids is your ticket into the amazing world of computer programming. For kids ages 10+ (and their parents) The code in this book runs on almost anything: Windows, Mac, Linux, even an OLPC laptop or Raspberry Pi!

Python Crash Course, 2nd Edition - Eric Matthes
2019-05-21

The second edition of the best-selling Python book in the world (over 1 million copies sold!). A fast-paced, no-nonsense guide to programming in Python. Updated and thoroughly revised to reflect the latest in Python code and practices. Python Crash Course is the world's best-selling guide to the Python programming language. This fast-paced, thorough introduction to programming with Python 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 basic programming concepts, such as variables, lists, classes, and loops, and practice writing clean code with exercises for each topic. You'll also learn how to make your programs interactive and test your code safely before adding it to a project. In the second half, you'll put your new knowledge into practice with three substantial projects: a Space Invaders-inspired arcade game, a set of data visualizations with Python's handy libraries, and a simple web app you can deploy online. As you work through the book, you'll learn how to:

- Use powerful Python libraries and tools, including Pygame, Matplotlib, Plotly, and Django
- Make 2D games that respond to keypresses and mouse clicks, and that increase in difficulty
- Use 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 about digging

into programming, Python Crash Course will get you writing real programs fast. Why wait any longer? Start your engines and code!

Learning Python - Mark Lutz 2013-06-12

Get a comprehensive, in-depth introduction to the core Python language with this hands-on book. Based on author Mark Lutz's popular training course, this updated fifth edition will help you quickly write efficient, high-quality code with Python. It's an ideal way to begin, whether you're new to programming or a professional developer versed in other languages. Complete with quizzes, exercises, and helpful illustrations, this easy-to-follow, self-paced tutorial gets you started with both Python 2.7 and 3.3—the latest releases in the 3.X and 2.X lines—plus all other releases in common use today. You'll also learn some advanced language features that recently have become more common in Python code. Explore Python's major built-in object types such as numbers, lists, and dictionaries Create and process objects with

Python statements, and learn Python's general syntax model Use functions to avoid code redundancy and package code for reuse Organize statements, functions, and other tools into larger components with modules Dive into classes: Python's object-oriented programming tool for structuring code Write large programs with Python's exception-handling model and development tools Learn advanced Python tools, including decorators, descriptors, metaclasses, and Unicode processing

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.

[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

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. *Coding Projects in Python* - DK 2017-06-06 Python for beginners - you'll learn how to build amazing graphics, fun games, and useful apps using Python, an easy yet powerful free programming language available for download. A perfect introduction to Python coding for kids ages 10 and over who are ready to take the next step after Scratch - all they need is a desktop or

laptop, and an internet connection to download Python 3. Using fun graphics and easy-to-follow instructions, this straightforward, visual guide shows young learners how to build their own computer projects using Python. Step-by-step instructions teach essential coding basics like loops and conditionals, and outline 14 fun and exciting projects. Included is a script that cracks secret codes, a quiz to challenge family and friends, a matching game, and more. When they feel more confident, kids can think creatively and use the tips and tricks provided to personalize and adapt each project. The simple, logical steps in Coding Projects in Python are fully illustrated with fun pixel art and build on the basics of coding. Kids will eventually have the skills to build whatever kind of project they can dream up - the only limit is your imagination! Create, Remix and Customize! Create crazy games, crack fiendish codes, and compose crafty quizzes with this amazing collection of Python projects. Suitable for

beginners and experts alike, Coding Projects in Python has everything enthusiastic coders need. Follow the simple steps to learn how to write code in this popular programming language and improve your programming skills, while you learn to create, remix, and customize your own projects. The material in this educational book is example based and the colors and humor keep children engaged while they learn to code. If your child is ready for the next step after mastering Scratch, this is the book to get! Inside this guide, you will learn about: - Starting with Python and first steps - Creating cool graphics and playful apps - Getting acquainted with games in Python Supporting STEM education initiatives, computer coding teaches kids how to think creatively, work collaboratively, and reason systematically, and is quickly becoming a necessary and sought-after skill. DK's computer coding books for kids are full of fun exercises with step-by-step guidance, making them the perfect introductory tools for building vital skills

in computer programming. Coding Projects in Python is the third in an awesome coding book series for kids. Add Coding Projects in Scratch and Coding Games in Scratch to your collection. [Python Programming for Biology](#) - Tim J. Stevens
2015-02-12

Do you have a biological question that could be readily answered by computational techniques, but little experience in programming? Do you want to learn more about the core techniques used in computational biology and bioinformatics? Written in an accessible style, this guide provides a foundation for both newcomers to computer programming and those interested in learning more about computational biology. The chapters guide the reader through: a complete beginners' course to programming in Python, with an introduction to computing jargon; descriptions of core bioinformatics methods with working Python examples; scientific computing techniques, including image analysis, statistics and machine learning. This

book also functions as a language reference written in straightforward English, covering the most common Python language elements and a glossary of computing and biological terms. This title will teach undergraduates, postgraduates and professionals working in the life sciences how to program with Python, a powerful, flexible and easy-to-use language.

The Python Workbook - Ben Stephenson
2015-01-22

While other textbooks devote their pages to explaining introductory programming concepts, The Python Workbook focuses exclusively on exercises, following the philosophy that computer programming is a skill best learned through experience and practice. Designed to support and encourage hands-on learning about programming, this student-friendly work contains 174 exercises, spanning a variety of academic disciplines and everyday situations. Solutions to selected exercises are also provided, supported by brief annotations that

explain the technique used to solve the problem, or highlight specific points of Python syntax. No background knowledge is required to solve the exercises, beyond the material covered in a typical introductory Python programming course. Undergraduate students undergoing their first programming course and wishing to enhance their programming abilities will find the exercises and solutions provided in this book to be ideal for their needs.

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

Programming for Computations - Python - Svein Linge 2016-07-25

This book presents computer programming as a key method for solving mathematical problems. There are two versions of the book, one for MATLAB and one for Python. The book was inspired by the Springer book TCSE 6: A Primer on Scientific Programming with Python (by Langtangen), but the style is more accessible and concise, in keeping with the needs of engineering students. The book outlines the shortest possible path from no previous experience with programming to a set of skills that allows the students to write simple programs for solving common mathematical problems with numerical methods in engineering and science courses. The emphasis is on generic

algorithms, clean design of programs, use of functions, and automatic tests for verification. [Python for Beginners](#) - Programming Languages ACADEMY 2021-03-16

☐☐☐ Want to Learn Python in No Time?! Check Out This Python Programming Crash Course for Beginners! ☐☐☐ Would you like to: ☐ Learn Python in no time? ☐ Automate tasks with Python? ☐ Be able to make machines work as efficiently as possible? ☐ Monetize your programming ideas? But you: ☐ Have no prior knowledge about Python? ☐ Think that programming is complicated? If you can answer any question above with "yes," then you are in the right place. With this unique guide in your hands, you will go from beginner to pro in no time! ☐ It doesn't matter if you have never coded before; these guides will thoroughly explain to you everything about Python and data science. All guides are written in a step-by-step and easy-to-digest manner so you will understand them without any trouble. Most of the other books you

can find on the market focus purely on basic theory and simple commands, but not this one. Here's what this beginner's guide can offer you:

- A beginner's crash course on how to get everything up and to run.
- Est tools that are available for programming with Python.
- Quick and easy way to learn how to make amazing and useful programs.
- Unique coding methods to go from beginner to pro in no time.
- Practical workbook to put your knowledge to the test and bring your ideas to life.
- Practical programming

exercises that will help you apply programming concepts to real-life situations.

- Debugging activities that will teach you to notice errors in Python code quickly.
- Fun projects that will test your knowledge and motivate you to practice even more.

If you want to conquer the Python programming language in no time, all you have to do is take these guides in your hands and follow the step-by-step instructions. So what are you waiting for? □ Scroll up, click on "Buy Now with 1-Click", and Get Your Copy Now!