



**Hands-On Python Natural Language Processing**

**Hands-On Blockchain for Python Developers**

**Build Apps with Voice Control and Speech Recognition**

**A Guide to Learning Programming**

**7 Manuscripts – Data Analytics for Beginners, Deep Learning with Keras, Analyzing Data with Power BI, Reinforcement Learning with Python, Artificial Intelligence Python, Text Analytics with Python, Convolutional Neural Networks in Python**

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

A project-based book that teaches beginning Python programmers how to build working, useful, and fun voice-controlled applications. This fun, hands-on book will take your basic Python skills to the next level as you build voice-controlled apps to use in your daily life. Starting with a Python refresher and an introduction to speech-recognition/text-to-speech functionalities, you’ll soon ease into more advanced topics, like making your own modules and building working voice-controlled apps. Each chapter scaffolds multiple projects that allow you to see real results from your code at a manageable pace, while end-of-chapter exercises strengthen your understanding of new concepts. You’ll design interactive games, like Connect Four and Tic-Tac-Toe, and create intelligent computer opponents that talk and take commands; you’ll make a real-time language translator, and create voice-activated financial-market apps that track the stocks or cryptocurrencies you are interested in. Finally, you’ll load all of these features into the ultimate virtual personal assistant – a conversational VPA that tells jokes, reads the news, and gives you hands-free control of your email, browser, music player, desktop files, and more. Along the way, you’ll learn how to: Build Python modules, implement animations, and integrate live data into an app Use web-scraping skills for voice-controlling podcasts, videos, and web searches Fine-tune the speech recognition to accept a variety of input Associate regular tasks like opening files and accessing the web with speech commands Integrate functionality from other programs into a single VPA with computational knowledge engines to answer almost any question Packed with cross-platform code examples to download, practice activities and exercises, and explainer images, you’ll quickly become proficient in Python coding in general and speech recognition/text to speech in particular.

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. Learn programming with Python by creating a text adventure. This book will teach you the fundamentals of programming, how to organize code, and some coding best practices. By the end of the book, you will have a working game that you can play or show off to friends. You will also be able to change the game and make it your own by writing a different story line, including new items, creating new characters, and more. Make your own Python Text Adventure offers a structured approach to learning Python that teaches the fundamentals of the language, while also guiding the development of the customizable game. The first half of the book introduces programming concepts and Python syntax by building the basic structure of the game. You’ll also apply the new concepts in homework questions (with solutions if you get stuck) that follow each chapter. The second half of the book will shift the focus to adding features to your game and making it more entertaining for the player. Python is often recommended as a first programming language for beginners, and for good reason. Whether you’ve just decided to learn programming or you’ve struggled before with vague tutorials, this book will help you get started. What You’ll Learn Install Python and set up a workspace Master programming basics and best practices including functions, lists, loops and objects Create an interactive adventure game with a customizable world Who This Book Is For People who have never programmed before or for novice programmers starting out with Python.

A Practitioner’s Guide to Natural Language Processing

Mission Python

A Practical Introduction to Information Retrieval and Text Mining

A Practical Introduction to Python 3

Sams Teach Yourself Python Programming for Raspberry Pi in 24 Hours

Data Analytics

Blueprints for Text Analytics Using Python

Summary A fun and imaginative way for kids and other beginners to take their first steps programming on a Raspberry Pi. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology The Raspberry Pi is a small, low-cost computer invented to encourage experimentation. The Pi is a snap to set up, and using the free Python programming language, you can learn to create video games, control robots, and maybe even write programs to do your math homework! About the Book Hello Raspberry Pi! is a fun way for kids to take their first steps programming on a Raspberry Pi. First, you discover how to set up and navigate the Pi. Next, begin Python programming by learning basic concepts with engaging challenges and games. This book gives you an introduction to computer programming as you gain the confidence to explore, learn, and create on your own. The last part of the book introduces you to the world of computer control of physical objects, where you create interactive projects with lights, buttons, and sounds. What’s Inside Learn Python with fun examples Write games and control electronics Use Pygame for video game sounds and graphics Loaded with programming exercises About the Reader To use this book, you’ll need a Raspberry Pi starter kit, keyboard, mouse, and monitor. No programming experience needed. Table of Contents PART 1 GETTING STARTED 1 Meet Raspberry Pi Exploring Python PART 2 PLAYING WITH PYTHON Silly Sentence Generator 3000: creating interactive programs Norwegian Blue parrot game: adding logic to programs Raspi’s Cave Adventure PART 3 PI AND PYTHON PROJECTS Blinky Pi Light Up Guessing Game

DJ Rasp! APPENDIXES Raspberry Pi troubleshooting Raspberry Pi ports and legacy boards Solutions to chapter challenges Raspberry Pi projects

Have you ever wanted to learn how to program but never found quite the right book to get you started? Programming: A Primer gets you going straight away with the fundamentals of what programming is, basic programming with Python and the fundamental aspects of practical web development. In this book, you’ll learn about: What programming is and how it can benefit you Variables and operations as the building blocks of a program.If statements, For loops and Methods in Python.Classes, Objects and Inheritance in Python.Web development using HTML, CSS, JavaScript, PHP and SQL.A basic introduction to some of the most important algorithms in programming.The programming languages and frameworks that are available to developers.The future of technology and opportunities for developers and entrepreneurs.Where you can take programming further to learn and create more amazing applications. Programming: A Primer offers an easy way into coding for anyone with an interest in using technology to solve problems, whether a school or new undergraduate computer science student or a working professional. It gives everyone, regardless of background, the ideal foundations and motivation needed to get to grips with programming. A companion website can be found here: <http://www.codingforbeginners.co.uk/>.

This book is intended for Python programmers interested in learning how to do natural language processing. Maybe you’ve learned the limits of regular expressions the hard way, or you’ve realized that human language cannot be deterministically parsed like a computer language. Perhaps you have more text than you know what to do with, and need automated ways to analyze and structure that text. This Cookbook will show you how to train and use statistical language models to process text in ways that are practically impossible with standard programming tools. A basic knowledge of Python and the basic text processing concepts is expected. Some experience with regular expressions will also be helpful.

If programming is magic then web scraping is surely a form of wizardry. By writing a simple automated program, you can query web servers, request data, and parse it to extract the information you need. The expanded edition of this practical book not only introduces you web scraping, but also serves as a comprehensive guide to scraping almost every type of data from the modern web. Part I focuses on web scraping mechanics: using Python to request information from a web server, performing basic handling of the server’s response, and interacting with sites in an automated fashion. Part II explores a variety of more specific tools and applications to fit any web scraping scenario you’re likely to encounter. Parse complicated HTML pages Develop crawlers with the Scrapy framework Learn methods to store data you scrape Read and extract data from documents Clean and normalize badly formatted data Read and write natural languages Crawl through forms and logins Scrape JavaScript and crawl through APIs Use and write image-to-text software Avoid scraping traps and bot blockers Use scrapers to test your website

Applied Text Analysis with Python

Python 3 Text Processing with Nltk 3 Cookbook

Game Programming for Teens

Code This Game!

Text Analytics with Python

Exploring Data in Python 3

Gain blockchain programming skills to build decentralized applications using Python

*Utilizes a hands-on approach to the fundamental principles and techniques of game programming, covering such topics as graphics, BlitzMax, audio, and special effects as it takes readers step-by-step through the process of creating a simple game.*

*Creative Coding in Python presents over 30 creative projects that teach kids how to code in the easy and intuitive programming language, Python. Creative Coding in Python teaches the fundamentals of computer programming and demonstrates how to code 30+ fun, creative projects using Python, a free, intuitive, open-source programming language that’s one of the top five most popular worldwide and one of the most popular Google search terms in the U.S. Computer science educator Sheena Vaidyanathan helps kids understand the fundamental ideas of computer programming and the process of computational thinking using illustrations, flowcharts, and pseudocode, then shows how to apply those essentials to code exciting projects in Python: Chatbots: Discover variables, strings, integers, and more to design conversational programs. Geometric art: Use turtle graphics to create original masterpieces. Interactive fiction: Explore booleans and conditionals to invent “create your own adventure” games. Dice games: Reuse code to devise games of chance.*

*From news and speeches to informal chatter on social media, natural language is one of the richest and most underutilized sources of data. Not only does it come in a constant stream, always changing and adapting in context; it also contains information that is not conveyed by traditional data sources. The key to unlocking natural language is through the creative application of text analytics. This practical book presents a data scientist’s approach to building language-aware products with applied machine learning. You’ll learn robust, repeatable, and scalable techniques for text analysis with Python, including contextual and linguistic feature engineering, vectorization, classification, topic modeling, entity resolution, graph analysis, and visual steering. By the end of the book, you’ll be equipped with practical methods to solve any number of complex real-world problems. Preprocess and vectorize text into high-dimensional feature representations Perform document classification and topic modeling Steer the model selection process with visual diagnostics Extract key phrases, named entities, and graph structures to reason about data in text Build a dialog framework to enable chatbots and language-driven interaction Use Spark to scale processing power and neural networks to scale model complexity*

*A pragmatic guide for developing your own games with Python About This Book Strengthen your fundamentals of game programming with Python language Seven hands-on games to create 2D and 3D games rapidly from scratch Illustrative guide to explore the different GUI libraries for building your games Who This Book Is For If you have ever wanted to create casual games in Python and you would like to explore various GUI technologies that this language offers, this is the book for you. This title is intended for beginners to Python with little or no knowledge of game development, and it covers step by step how to build seven different games, from the well-known Space Invaders to a classical 3D platformer. What You Will Learn Take advantage of Python’s clean syntax to build games quickly Discover distinct frameworks for developing graphical applications Implement non-player characters (NPCs) with autonomous and seemingly intelligent behaviors Design and code some popular games like Pong and tower defense Compose maps and levels for your sprite-based games in an easy manner Modularize and apply object-oriented principles during the design of your games Exploit libraries like Chimpunk2D, cocos2d, and Tkinter Create natural user interfaces (NUIs), using a camera and computer vision algorithms to interpret the player’s real-world actions In Detail With a growing interest in learning to program, game development is an appealing topic for getting started with coding. From geometry to basic Artificial Intelligence algorithms, there are plenty of concepts that can be applied in almost every game. Python is a widely used general-purpose, high-level programming language. It provides constructs intended to enable clear programs on both a small and large scale. It is the third most popular language whose grammatical syntax is not predominantly based on C. Python is also very easy to code and is also highly flexible, which is exactly what is required for game development. The user-friendliness of this language allows beginners to code games without too much effort or training. Python also works with very little code and in most cases uses the “use cases” approach, reserving lengthy explicit coding for outliers and exceptions, making game development an achievable feat. Python Game Programming by Example enables readers to develop cool and popular games in Python without having in-depth programming knowledge of Python. The book includes seven hands-on projects developed with several well-known Python packages, as well as a comprehensive explanation about the theory and design of each game. It will teach readers about the techniques of game design and coding of some popular games like Pong and tower defense. Thereafter, it will allow readers to add levels of complexities to make the games more fun and realistic using 3D. At the end of the book, you will have added several GUI libraries like Chimpunk2D, cocos2d, and Tkinter in your tool belt, as well as a handful of recipes and algorithms for developing games with Python. Style and approach This book is an example-based guide that will teach you to build games using Python.*

*This book follows a step-by-step approach as it is aimed at beginners who would like to get started with basic game development. By the end of this book you will be competent game developers with good knowledge of programming in Python.*

*Foundations of Python Network Programming*