
Expert Python Programming Second Edition

Expert Python Programming
Python Parallel Programming Cookbook
Python Programming Professional Made Easy
Expert Python Programming, Second Edition
Clean Code in Python
Fluent Python
Python Programming
The Quick Python Book
Advance Core Python Programming
Learning Python Design Patterns
Head First Python
Think Python
Python Programming for the Absolute Beginner
Mastering Python
Python Crash Course
Expert Python Programming
High Performance Python
Learning Python
Mastering Python
Advanced Python Programming
Python Cookbook
Advanced Guide to Python 3 Programming
Clean Code in Python
Learn Python Programming
Expert Python Programming
Functional Python Programming
Expert Python Programming
Introduction to Computation and Programming Using Python, second edition
Mastering Python Design Patterns
Black Hat Python, 2nd Edition
Advanced Python Programming
Mastering Object-oriented Python
Expert Twisted
Pro Python
Expert Python Programming
CPython Internals
Expert Python Programming
Python High Performance
Python Object-Oriented Programming
Core Python Programming

*Expert Python
Programming Second
Edition*

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ROLLINS MILLS

*Expert Python Programming Course
Technology*

Gain a deep understanding of building, maintaining, packaging, and shipping robust Python applications

Key Features Discover the new features of Python, such as dictionary merge, the zoneinfo module, and structural pattern matching

Create manageable code to run in various environments with different sets of dependencies

Implement effective Python data structures and algorithms to write, test, and optimize code

Book Description This new edition of *Expert Python Programming* provides you with a thorough understanding of the process of building and maintaining Python apps. Complete with best practices, useful tools, and standards implemented by professional Python developers, this fourth edition has been extensively updated. Throughout this book, you'll get acquainted with the latest Python improvements, syntax elements, and interesting tools to boost your development efficiency. The initial few chapters will allow experienced programmers coming from different languages to transition to the Python ecosystem. You will explore common software design patterns and various programming methodologies, such as event-driven programming, concurrency, and metaprogramming. You will also go through complex code examples and try to solve meaningful problems by bridging Python with C and C++, writing extensions that benefit from the strengths of multiple languages. Finally, you will understand the complete lifetime of any application after it goes

live, including packaging and testing automation. By the end of this book, you will have gained actionable Python programming insights that will help you effectively solve challenging problems. What you will learn

Explore modern ways of setting up repeatable and consistent Python development environments

Effectively package Python code for community and production use

Learn modern syntax elements of Python programming, such as f-strings, enums, and lambda functions

Demystify metaprogramming in Python with metaclasses

Write concurrent code in Python

Extend and integrate Python with code written in C and C++

Who this book is for The Python programming book is intended for expert programmers who want to learn Python's advanced-level concepts and latest features. Anyone who has basic Python skills should be able to follow the content of the book, although it might require some additional effort from less experienced programmers. It should also be a good introduction to Python 3.9 for those who are still a bit behind and continue to use other older versions.

Python Parallel Programming

Cookbook Packt Publishing Ltd

Master efficient parallel programming to build powerful applications using Python

About This Book Design and implement efficient parallel software

Master new programming techniques to address and solve complex programming problems

Explore the world of parallel programming with this book, which is a go-to resource for different kinds of parallel computing tasks in Python, using examples and topics covered in great depth

Who This Book Is For Python Parallel Programming Cookbook is intended for software developers who are well versed with Python and want to

use parallel programming techniques to write powerful and efficient code. This book will help you master the basics and the advanced of parallel computing.

What You Will Learn

- Synchronize multiple threads and processes to manage parallel tasks
- Implement message passing communication between processes to build parallel applications
- Program your own GPU cards to address complex problems
- Manage computing entities to execute distributed computational tasks
- Write efficient programs by adopting the event-driven programming model
- Explore the cloud technology with Django and Google App Engine
- Apply parallel programming techniques that can lead to performance improvements

In Detail

Parallel programming techniques are required for a developer to get the best use of all the computational resources available today and to build efficient software systems. From multi-core to GPU systems up to the distributed architectures, the high computation of programs throughout requires the use of programming tools and software libraries. Because of this, it is becoming increasingly important to know what the parallel programming techniques are. Python is commonly used as even non-experts can easily deal with its concepts. This book will teach you parallel programming techniques using examples in Python and will help you explore the many ways in which you can write code that allows more than one process to happen at once. Starting with introducing you to the world of parallel computing, it moves on to cover the fundamentals in Python. This is followed by exploring the thread-based parallelism model using the Python threading module by synchronizing threads and using locks, mutex,

semaphores queues, GIL, and the thread pool. Next you will be taught about process-based parallelism where you will synchronize processes using message passing along with learning about the performance of MPI Python Modules. You will then go on to learn the asynchronous parallel programming model using the Python asyncio module along with handling exceptions. Moving on, you will discover distributed computing with Python, and learn how to install a broker, use Celery Python Module, and create a worker. You will also understand the StarCluster framework, Pycsp, Scoop, and Disco modules in Python. Further on, you will learn GPU programming with Python using the PyCUDA module along with evaluating performance limitations. Next you will get acquainted with the cloud computing concepts in Python, using Google App Engine (GAE), and building your first application with GAE. Lastly, you will learn about grid computing concepts in Python and using PyGlobus toolkit, GFTP and GASS COPY to transfer files, and service monitoring in PyGlobus.

Style and approach A step-by-step guide to parallel programming using Python, with recipes accompanied by one or more programming examples. It is a practically oriented book and has all the necessary underlying parallel computing concepts.

Python Programming Professional Made Easy CreateSpace

If you are new to programming with Python and are looking for a solid introduction, this is the book for you. Developed by computer science instructors, books in the for the absolute beginner series teach the principles of programming through simple game creation. You will acquire the skills that you need for more practical Python

programming applications and you will learn how these skills can be put to use in real- world scenarios. Best of all, by the time you finish this book you will be able to apply the basic principles youve learned to the next programming language you tackle.

Expert Python Programming, Second Edition Packt Publishing Ltd

Mastering Advanced Python

Programming KEY FEATURES ● In-depth coverage on fundamentals of functions, recursion, classes, inheritance, and files.

● Mastery of advanced topics - Database connectivity, Errors and Exception, Testing and Debugging, threads, Data visualization, and Data analysis. ● In-depth coverage of advanced concepts such as data structures, and algorithms.

● Simplifies GUI and Widgets. ● Learn to connect GUI with MySQL to create a complete working application. ●

Introduction to Flask. ● Thorough, detailed, and complete coverage of all topics along with ample coding examples and illustrations. DESCRIPTION Advance Core Python Programming is designed for Programmers who have a good understanding of Python basics and are ready to take the next steps. For entry-level Python programmers willing to dive deeper into programming, this book provides a path that will help them to add innovative features to their applications. This book starts by introducing you to the concept of Functions and Recursion and then moves on to higher levels of introducing you to OOP concepts, Files, integrating Python with database, threading, errors, exceptions, testing, debugging, data visualization, data analysis, GUI, data structures and algorithms. All these topics are the need of the hour and this book simplifies all these critical and essential concepts of Python for you.

Knowledge of these topics will ease the functioning of your envisioned application. Throughout the book, you will have access to several coding examples which will help you to understand the real practical application of advanced Python concepts and you will be able to work on any kind of Python project with confidence. WHAT YOU WILL LEARN ● Learn advanced Python topics in simple language. ● Learn how to code in easy-to-follow steps. ● Learn to create your own classes and functions. ● Learn to work with Files. ● Learn to configure MySQL and make Python programs interact with the MySQL database. ● Get to know different types of errors, exceptions, and ways to test, debug and rectify them. ● Learn how to use Python for Data Visualization and Data Analysis. ● Learn to Create GUI features and add Widgets. ● Learn about data structures and algorithms. ● Learn to create and develop stack, queues, trees, and linked lists. ● Explore Flask, its features, and how to use it to build web applications. ● Learn to work on complex code by following simple step-by-step instructions. ● Prepare for theory and practical exams related to advanced Python Concepts. WHO THIS BOOK IS FOR This book is highly appealing to all tech-savvy students, programming enthusiasts, IT graduates, and computer science professionals who want to build strong proficiency in building Python applications. Prior understanding of Python basic coding concepts like variables, expressions, and control structures is required to begin with this book. You can also read Basic Core Python Programming to develop strong fundamentals before you start with this book. TABLE OF CONTENTS 1. Functions and Recursion 2. Classes, Objects, and

Inheritance 3. Files 4. MySQL for Python 5. Python Threads 6. Errors, Exceptions, Testing, and Debugging 7. Data Visualization and Data Analysis 8. Creating the GUI form and Adding Widgets 9. MySQL and Python Graphical User Interface 10. Stack, Queue, and Deque 11. Linked List 12. Trees 13. Searching and Sorting 14. Getting Started with Flask

Clean Code in Python "O'Reilly Media, Inc."

Fully-updated for Python 3, the second edition of this worldwide bestseller (over 100,000 copies sold) explores the stealthier side of programming and brings you all new strategies for your hacking projects. When it comes to creating powerful and effective hacking tools, Python is the language of choice for most security analysts. In this second edition of the bestselling *Black Hat Python*, you'll explore the darker side of Python's capabilities: everything from writing network sniffers, stealing email credentials, and bruteforcing directories to crafting mutation fuzzers, investigating virtual machines, and creating stealthy trojans. All of the code in this edition has been updated to Python 3.x. You'll also find new coverage of bit shifting, code hygiene, and offensive forensics with the Volatility Framework as well as expanded explanations of the Python libraries `cTypes`, `struct`, `lxml`, and `BeautifulSoup`, and offensive hacking strategies like splitting bytes, leveraging computer vision libraries, and scraping websites. You'll even learn how to: Create a trojan command-and-control server using GitHub Detect sandboxing and automate common malware tasks like keylogging and screenshotting Extend the Burp Suite web-hacking tool Escalate Windows privileges with creative process

control Use offensive memory forensics tricks to retrieve password hashes and find vulnerabilities on a virtual machine Abuse Windows COM automation Exfiltrate data from a network undetected When it comes to offensive security, you need to be able to create powerful tools on the fly. Learn how with *Black Hat Python*.

Fluent Python Packt Publishing Ltd

Become an ace Python programmer by learning best coding practices and advance-level concepts with Python 3.5 About This Book- Based on the latest stable version of Python (version 3.5)- Creating well manageable code that will run in various environments with different sets of dependencies- Packed with advanced concepts and best practices to write efficient Python code Who This Book Is For The book would appeal to web developers and Python programmers who want to start using version 3.5 and write code efficiently. Basic knowledge of Python programming is expected. What You Will Learn- Conventions and best practices that are widely adopted in the python community- Package python code effectively for community and production use- Easy and lightweight ways to automate code deployment on remote systems- Improve your code's quality, reliability, and performance- Write concurrent code in python- Extend python with code written in different languages In Detail Python is a dynamic programming language, used in a wide range of domains by programmers who find it simple, yet powerful. Even if you find writing Python code easy, writing code that is efficient and easy to maintain and reuse is a challenge. The focus of the book is to familiarize you with common conventions, best practices, useful tools and standards

used by python professionals on a daily basis when working with code. You will begin with knowing new features in Python 3.5 and quick tricks for improving productivity. Next, you will learn advanced and useful python syntax elements brought to this new version. Using advanced object-oriented concepts and mechanisms available in python, you will learn different approaches to implement metaprogramming. You will learn to choose good names, write packages, and create standalone executables easily. You will also be using some powerful tools such as buildout and virtualenv to release and deploy the code on remote servers for production use. Moving on, you will learn to effectively create Python extensions with C, C++, cython, and pyrex. The important factors while writing code such as code management tools, writing clear documentation, and test-driven development are also covered. You will now dive deeper to make your code efficient with general rules of optimization, strategies for finding bottlenecks, and selected tools for application optimization. By the end of the book, you will be an expert in writing efficient and maintainable code.

Style and approach An easy-to-follow guide that covers industry followed best practices in Python programming

Python Programming No Starch Press Refine your Python programming skills and build professional grade applications with this comprehensive guide

Key Features Create manageable code that can run in various environments with different sets of dependencies Implement effective Python data structures and algorithms to write optimized code Discover the exciting new features of Python 3.7 Book

Description Python is a dynamic programming language that's used in a wide range of domains thanks to its simple yet powerful nature. Although writing Python code is easy, making it readable, reusable, and easy to maintain is challenging. Complete with best practices, useful tools, and standards implemented by professional Python developers, the third edition of Expert Python Programming will help you overcome this challenge. The book will start by taking you through the new features in Python 3.7. You'll then learn the advanced components of Python syntax, in addition to understanding how to apply concepts of various programming paradigms, including object-oriented programming, functional programming, and event-driven programming. This book will also guide you through learning the best naming practices, writing your own distributable Python packages, and getting up to speed with automated ways of deploying your software on remote servers. You'll discover how to create useful Python extensions with C, C++, Cython, and CFFI. Furthermore, studying about code management tools, writing clear documentation, and exploring test-driven development will help you write clean code. By the end of the book, you will have become an expert in writing efficient and maintainable Python code.

What you will learn Explore modern ways of setting up repeatable and consistent development environments Package Python code effectively for community and production use Learn modern syntax elements of Python programming such as f-strings, enums, and lambda functions Demystify metaprogramming in Python with metaclasses Write concurrent code in Python Extend Python with code written

in different languages Integrate Python with code written in different languages Who this book is for This book will appeal to you if you're a programmer looking to take your Python knowledge to the next level by writing efficient code and learning the latest features of version 3.7 and above.

The Quick Python Book Packt Publishing Ltd

Create succinct and expressive implementations with functional programming in Python Key Features Learn how to choose between imperative and functional approaches based on expressiveness, clarity, and performance Get familiar with complex concepts such as monads, concurrency, and immutability Apply functional Python to common Exploratory Data Analysis (EDA) programming problems Book Description If you're a Python developer who wants to discover how to take the power of functional programming (FP) and bring it into your own programs, then this book is essential for you, even if you know next to nothing about the paradigm. Starting with a general overview of functional concepts, you'll explore common functional features such as first-class and higher-order functions, pure functions, and more. You'll see how these are accomplished in Python 3.6 to give you the core foundations you'll build upon. After that, you'll discover common functional optimizations for Python to help your apps reach even higher speeds. You'll learn FP concepts such as lazy evaluation using Python's generator functions and expressions. Moving forward, you'll learn to design and implement decorators to create composite functions. You'll also explore data preparation techniques and data exploration in depth, and see how the

Python standard library fits the functional programming model. Finally, to top off your journey into the world of functional Python, you'll at look at the PyMonad project and some larger examples to put everything into perspective. What you will learn Use Python's generator functions and generator expressions to work with collections in a non-strict (or lazy) manner Utilize Python library modules including itertools, functools, multiprocessing, and concurrent features to ensure efficient functional programs Use Python strings with object-oriented suffix notation and prefix notation Avoid stateful classes with families of tuples Design and implement decorators to create composite functions Use functions such as max(), min(), map(), filter(), and sorted() Write higher-order functions Who this book is for This book is for Python developers who would like to perform Functional programming with Python. Python Programming knowledge is assumed.

Advance Core Python Programming
Springer Nature

Write fast, robust, and highly reusable applications using Python's internal optimization, state-of-the-art performance-benchmarking tools, and cutting-edge libraries Key Features Benchmark, profile, and accelerate Python programs using optimization tools Scale applications to multiple processors with concurrent programming Make applications robust and reusable using effective design patterns Book Description Python's powerful capabilities for implementing robust and efficient programs make it one of the most sought-after programming languages. In this book, you'll explore the tools that allow you to improve performance and take your

Python programs to the next level. This book starts by examining the built-in as well as external libraries that streamline tasks in the development cycle, such as benchmarking, profiling, and optimizing. You'll then get to grips with using specialized tools such as dedicated libraries and compilers to increase your performance at number-crunching tasks, including training machine learning models. The book covers concurrency, a major solution to making programs more efficient and scalable, and various concurrent programming techniques such as multithreading, multiprocessing, and asynchronous programming. You'll also understand the common problems that cause undesirable behavior in concurrent programs. Finally, you'll work with a wide range of design patterns, including creational, structural, and behavioral patterns that enable you to tackle complex design and architecture challenges, making your programs more robust and maintainable. By the end of the book, you'll be exposed to a wide range of advanced functionalities in Python and be equipped with the practical knowledge needed to apply them to your use cases. What you will learn

- Write efficient numerical code with NumPy, pandas, and Xarray
- Use Cython and Numba to achieve native performance
- Find bottlenecks in your Python code using profilers
- Optimize your machine learning models with JAX
- Implement multithreaded, multiprocessing, and asynchronous programs
- Solve common problems in concurrent programming, such as deadlocks
- Tackle architecture challenges with design patterns

Who this book is for
This book is for intermediate to experienced Python programmers who are looking to scale up their applications in a systematic and robust manner.

Programmers from a range of backgrounds will find this book useful, including software engineers, scientific programmers, and software architects.

Learning Python Design Patterns
"O'Reilly Media, Inc."

Leverage the power of Python design patterns to solve real-world problems in software architecture and design

About This Book Understand the structural, creational, and behavioral Python design patterns Get to know the context and application of design patterns to solve real-world problems in software architecture, design, and application development Get practical exposure through sample implementations in Python v3.5 for the design patterns featured

Who This Book Is For This book is for Software architects and Python application developers who are passionate about software design. It will be very useful to engineers with beginner level proficiency in Python and who love to work with Python 3.5

What You Will Learn Enhance your skills to create better software architecture Understand proven solutions to commonly occurring design issues Explore the design principles that form the basis of software design, such as loose coupling, the Hollywood principle and the Open Close principle among others Delve into the object-oriented programming concepts and find out how they are used in software applications Develop an understanding of Creational Design Patterns and the different object creation methods that help you solve issues in software development Use Structural Design Patterns and find out how objects and classes interact to build larger applications Focus on the interaction between objects with the command and observer patterns Improve the productivity and code base

of your application using Python design patterns. In Detail With the increasing focus on optimized software architecture and design it is important that software architects think about optimizations in object creation, code structure, and interaction between objects at the architecture or design level. This makes sure that the cost of software maintenance is low and code can be easily reused or is adaptable to change. The key to this is reusability and low maintenance in design patterns. Building on the success of the previous edition, *Learning Python Design Patterns, Second Edition* will help you implement real-world scenarios with Python's latest release, Python v3.5. We start by introducing design patterns from the Python perspective. As you progress through the book, you will learn about Singleton patterns, Factory patterns, and Facade patterns in detail. After this, we'll look at how to control object access with proxy patterns. It also covers observer patterns, command patterns, and compound patterns. By the end of the book, you will have enhanced your professional abilities in software architecture, design, and development.

Style and approach This is an easy-to-follow guide to design patterns with hands-on examples of real-world scenarios and their implementation in Python v3.5. Each topic is explained and placed in context, and for the more inquisitive, there are more details on the concepts used.

Head First Python Packt Publishing Ltd
Refine your Python programming skills and build professional grade applications with this comprehensive guide
Key Features
Create manageable code that can run in various environments with different sets of dependencies
Implement effective Python data structures and

algorithms to write optimized code
Discover the exciting new features of Python 3.7
Book Description Python is a dynamic programming language that's used in a wide range of domains thanks to its simple yet powerful nature. Although writing Python code is easy, making it readable, reusable, and easy to maintain is challenging. Complete with best practices, useful tools, and standards implemented by professional Python developers, the third edition of *Expert Python Programming* will help you overcome this challenge. The book will start by taking you through the new features in Python 3.7. You'll then learn the advanced components of Python syntax, in addition to understanding how to apply concepts of various programming paradigms, including object-oriented programming, functional programming, and event-driven programming. This book will also guide you through learning the best naming practices, writing your own distributable Python packages, and getting up to speed with automated ways of deploying your software on remote servers. You'll discover how to create useful Python extensions with C, C++, Cython, and CFFI. Furthermore, studying about code management tools, writing clear documentation, and exploring test-driven development will help you write clean code. By the end of the book, you will have become an expert in writing efficient and maintainable Python code. What you will learn
Explore modern ways of setting up repeatable and consistent development environments
Package Python code effectively for community and production use
Learn modern syntax elements of Python programming such as f-strings, enums, and lambda functions
Demystify metaprogramming in Python with metaclasses
Write

concurrent code in Python
 Extend Python with code written in different languages
 Integrate Python with code written in different languages
 Who this book is for This book will appeal to you if you're a programmer looking to take your Python knowledge to the next level by writing efficient code and learning the latest features of version 3.7 and above.
Think Python Packt Publishing Ltd
 Get your guided tour through the Python 3.9 interpreter: Unlock the inner workings of the Python language, compile the Python interpreter from source code, and participate in the development of CPython. Are there certain parts of Python that just seem like magic? This book explains the concepts, ideas, and technicalities of the Python interpreter in an approachable and hands-on fashion. Once you see how Python works at the interpreter level, you can optimize your applications and fully leverage the power of Python. By the End of the Book You'll Be Able To: Read and navigate the CPython 3.9 interpreter source code. You'll deeply comprehend and appreciate the inner workings of concepts like lists, dictionaries, and generators. Make changes to the Python syntax and compile your own version of CPython, from scratch. You'll customize the Python core data types with new functionality and run CPython's automated test suite. Master Python's memory management capabilities and scale your Python code with parallelism and concurrency. Debug C and Python code like a true professional. Profile and benchmark the performance of your Python code and the runtime. Participate in the development of CPython and know how to contribute to future versions of the Python interpreter and standard library. How great would it feel to give

back to the community as a "Python Core Developer?" With this book you'll cover the critical concepts behind the internals of CPython and how they work with visual explanations as you go along. Each page in the book has been carefully laid out with beautiful typography, syntax highlighting for code examples. What Python Developers Say About The Book: "It's the book that I wish existed years ago when I started my Python journey. [...] After reading this book your skills will grow and you will be able solve even more complex problems that can improve our world." - Carol Willing, CPython Core Developer & Member of the CPython Steering Council "CPython Internals is a great (and unique) resource for anybody looking to take their knowledge of Python to a deeper level." - Dan Bader, Author of Python Tricks "There are a ton of books on Python which teach the language, but I haven't really come across anything that would go about explaining the internals to those curious minded." - Milan Patel, Vice President at (a major investment bank)

Python Programming for the Absolute Beginner Manning

Publications Company
 Python Programming Professional Made Easy 2nd Edition! Sam Key back at it again with his upgraded version of Python Going from beginner to professional? Want to skip the learning curve? Need the jargon removed so you can understand in your terms? From various programming languages to statements and Basic Operators Everything you need to know with functions and flow controls! Don't waste anytime and jump on board of Python! Start your programming right now! PURCHASE NOW DO NOT WAIT! GRAB YOUR COPY OF SUCCESS RIGHT NOW!

Mastering Python Apress

Your Python code may run correctly, but you need it to run faster. Updated for Python 3, this expanded edition shows you how to locate performance bottlenecks and significantly speed up your code in high-data-volume programs. By exploring the fundamental theory behind design choices, High Performance Python helps you gain a deeper understanding of Python's implementation. How do you take advantage of multicore architectures or clusters? Or build a system that scales up and down without losing reliability? Experienced Python programmers will learn concrete solutions to many issues, along with war stories from companies that use high-performance Python for social media analytics, productionized machine learning, and more. Get a better grasp of NumPy, Cython, and profilers Learn how Python abstracts the underlying computer architecture Use profiling to find bottlenecks in CPU time and memory usage Write efficient programs by choosing appropriate data structures Speed up matrix and vector computations Use tools to compile Python down to machine code Manage multiple I/O and computational operations concurrently Convert multiprocessing code to run on local or remote clusters Deploy code faster using tools like Docker

Python Crash Course Packt Publishing Ltd

Python's simplicity lets you become productive quickly, but this often means you aren't using everything it has to offer. With this hands-on guide, you'll learn how to write effective, idiomatic Python code by leveraging its best—and possibly most neglected—features. Author Luciano Ramalho takes you through Python's core language features

and libraries, and shows you how to make your code shorter, faster, and more readable at the same time. Many experienced programmers try to bend Python to fit patterns they learned from other languages, and never discover Python features outside of their experience. With this book, those Python programmers will thoroughly learn how to become proficient in Python 3. This book covers: Python data model: understand how special methods are the key to the consistent behavior of objects Data structures: take full advantage of built-in types, and understand the text vs bytes duality in the Unicode age Functions as objects: view Python functions as first-class objects, and understand how this affects popular design patterns Object-oriented idioms: build classes by learning about references, mutability, interfaces, operator overloading, and multiple inheritance Control flow: leverage context managers, generators, coroutines, and concurrency with the concurrent.futures and asyncio packages Metaprogramming: understand how properties, attribute descriptors, class decorators, and metaclasses work [Expert Python Programming](#) No Starch Press

Portable, powerful, and a breeze to use, Python is ideal for both standalone programs and scripting applications. With this hands-on book, you can master the fundamentals of the core Python language quickly and efficiently, whether you're new to programming or just new to Python. Once you finish, you will know enough about the language to use it in any application domain you choose. Learning Python is based on material from author Mark Lutz's popular training courses, which he's taught over the past decade. Each chapter is a self-contained

lesson that helps you thoroughly understand a key component of Python before you continue. Along with plenty of annotated examples, illustrations, and chapter summaries, every chapter also contains Brain Builder, a unique section with practical exercises and review quizzes that let you practice new skills and test your understanding as you go. This book covers: Types and Operations - Python's major built-in object types in depth: numbers, lists, dictionaries, and more Statements and Syntax -- the code you type to create and process objects in Python, along with Python's general syntax model Functions -- Python's basic procedural tool for structuring and reusing code Modules -- packages of statements, functions, and other tools organized into larger components Classes and OOP -- Python's optional object-oriented programming tool for structuring code for customization and reuse Exceptions and Tools -- exception handling model and statements, plus a look at development tools for writing larger programs Learning Python gives you a deep and complete understanding of the language that will help you comprehend any application-level examples of Python that you later encounter. If you're ready to discover what Google and YouTube see in Python, this book is the best way to get started. [High Performance Python](#) Packt Pub Limited

Become an ace Python programmer by learning best coding practices and advance-level concepts with Python 3.5 About This Book Based on the latest stable version of Python (version 3.5) Creating well manageable code that will run in various environments with different sets of dependencies Packed with advanced concepts and best practices to write efficient Python code

Who This Book Is For The book would appeal to web developers and Python programmers who want to start using version 3.5 and write code efficiently. Basic knowledge of Python programming is expected. What You Will Learn Conventions and best practices that are widely adopted in the python community Package python code effectively for community and production use Easy and lightweight ways to automate code deployment on remote systems Improve your code's quality, reliability, and performance Write concurrent code in python Extend python with code written in different languages In Detail Python is a dynamic programming language, used in a wide range of domains by programmers who find it simple, yet powerful. Even if you find writing Python code easy, writing code that is efficient and easy to maintain and reuse is a challenge. The focus of the book is to familiarize you with common conventions, best practices, useful tools and standards used by python professionals on a daily basis when working with code. You will begin with knowing new features in Python 3.5 and quick tricks for improving productivity. Next, you will learn advanced and useful python syntax elements brought to this new version. Using advanced object-oriented concepts and mechanisms available in python, you will learn different approaches to implement metaprogramming. You will learn to choose good names, write packages, and create standalone executables easily. You will also be using some powerful tools such as buildout and virtualenv to release and deploy the code on remote servers for production use. Moving on, you will learn to effectively create Python extensions with C, C++, cython, and pyrex. The important factors

while writing code such as code management tools, writing clear documentation, and test-driven development are also covered. You will now dive deeper to make your code efficient with general rules of optimization, strategies for finding bottlenecks, and selected tools for application optimization. By the end of the book, you will be an expert in writing efficient and maintainable code. Style and approach An easy-to-follow guide that covers industry followed best practices in Python programming

Learning Python Packt Publishing Ltd
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.

[Mastering Python](#) Packt Publishing Ltd
You've learned the basics of Python, but how do you take your skills to the next stage? Even if you know enough to be productive, there are a number of

features that can take you to the next level in Python. *Pro Python* explores concepts and features normally left to experimentation, allowing you to be even more productive and creative. In addition to pure code concerns, *Pro Python* will develop your programming techniques and approaches, which will help make you a better Python programmer. Not only will this book help your code, it will also help you understand and interact with the many established Python communities, or even start your own. Take your Python knowledge and coding skills to the next level. Write clean, innovative code that will be respected among your peers. Make your code do more with introspection and metaprogramming. Design complete frameworks and libraries (two are included in the book!). For more information, including a link to the source code referenced in the book, please visit <http://propython.com/>.

Advanced Python Programming MIT Press
Learn how to use Python to create efficient applications
About This Book
Identify the bottlenecks in your applications and solve them using the best profiling techniques
Write efficient numerical code in NumPy, Cython, and Pandas
Adapt your programs to run on multiple processors and machines with parallel programming
Who This Book Is For
The book is aimed at Python developers who want to improve the performance of their application. Basic knowledge of Python is expected
What You Will Learn
Write efficient numerical code with the NumPy and Pandas libraries
Use Cython and Numba to achieve native performance
Find bottlenecks in your Python code using profilers
Write asynchronous code using Asyncio and RxPy
Use Tensorflow and

Theano for automatic parallelism in Python Set up and run distributed algorithms on a cluster using Dask and PySpark In Detail Python is a versatile language that has found applications in many industries. The clean syntax, rich standard library, and vast selection of third-party libraries make Python a wildly popular language. Python High Performance is a practical guide that shows how to leverage the power of both native and third-party Python libraries to build robust applications. The book explains how to use various profilers to find performance bottlenecks and apply the correct algorithm to fix them. The reader will learn how to effectively use

NumPy and Cython to speed up numerical code. The book explains concepts of concurrent programming and how to implement robust and responsive applications using Reactive programming. Readers will learn how to write code for parallel architectures using Tensorflow and Theano, and use a cluster of computers for large-scale computations using technologies such as Dask and PySpark. By the end of the book, readers will have learned to achieve performance and scale from their Python applications. Style and approach A step-by-step practical guide filled with real-world use cases and examples