
Think Python Allen B Downey

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Think Stats
Addison-Wesley
Professional
The goal of this
book is to teach
you to think like a
computer scientist.

This way of thinking
Like engineers, they
combines some of design things,
the best features of assembling
of mathematics, components into
engineering, and systems and
natural science. evaluating tradeoffs
among alternatives.
Like Like scientists, they
mathematicians, observe the
computer scientists behavior of
use formal complex systems,
languages to denote form hypotheses,
ideas (specifically and test
computations).

predictions. The single most important skill for a computer scientist is problem solving. Problem solving means the ability to formulate problems, think creatively about solutions, and express a solution clearly and accurately. As it turns out, the process of learning to program is an excellent opportunity to practice problem-solving skills. That's why this chapter is called, The way of the program. On one level, you will be learning to program, a useful skill by itself. On

another level, you will use programming as a means to an end. As we go along, that end will become clearer. Think Complexity Samurai Media Limited An excellent supplement to Computer Science Illuminated, as well as a superb primer, Computer Science: The Python Programming Language offers a clear introduction to this user-friendly language. This overview describes the fundamentals of the interactive Python environment, the structure of Python programs, how Python supports object-oriented programming, and

much more. Beginning programmers will be relieved that this modern programming language is not only easy to learn but easy to use as well! Think Julia "O'Reilly Media, Inc." Currently used at many colleges, universities, and high schools, this hands-on introduction to computer science is ideal for people with little or no programming experience. The goal of this concise book is not just to teach you Java, but to help you think like a computer

scientist. practice what arrays Work on
You'll learn you've learned. exercises
how to Learn one involving word
program—a concept at a games,
useful skill by time: tackle graphics,
itself—but complex topics puzzles, and
you'll also in a series of playing cards
discover how to small steps Head First Python
use programming with examples Apress
as a means to Understand how
an end. Authors to formulate
Allen Downey problems, think
and Chris creatively
Mayfield start about
with the most solutions, and
basic concepts write programs
and gradually clearly and
move into accurately
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more complex, development
such as techniques work
recursion and best for you,
object-oriented and practice
programming. the important
Each brief skill of
chapter covers debugging Learn
the material relationships
for one week of among input and
a college output,
course and decisions and
includes loops, classes
exercises to and methods,
help you strings and
you'll find

complete recipes for more than a dozen topics, covering the core Python language as well as tasks common to a wide variety of application domains. Each recipe contains code samples you can use in your projects right away, along with a discussion about how and why the solution works. Topics include: Data Structures and Algorithms Strings and Text Numbers, Dates, and Times Iterators and Generators Files and I/O Data Encoding and

Processing Functions Classes and Objects Metaprogramming Modules and Packages Network and Web Programming Concurrency Utility Scripting and System Administration Testing, Debugging, and Exceptions C Extensions

Learn Ruby the Hard Way
"O'Reilly Media, Inc."
Shows how to write, debug, and run a Perl program, describes CGI scripting and data manipulation,

and describes scalar values, basic operators, and associative arrays.

Concrete Abstractions
"O'Reilly Media, Inc."
Complexity science uses computation to explore the physical and social sciences. In Think Complexity, you'll use graphs, cellular automata, and agent-based models to study topics in physics, biology, and economics. Whether you're an intermediate-level Python programmer or a student of computational modeling, you'll delve into examples of complex systems

through a series of worked examples, exercises, case studies, and easy-to-understand explanations. In this updated second edition, you will: Work with NumPy arrays and SciPy methods, including basic signal processing and Fast Fourier Transform Study abstract models of complex physical systems, including power laws, fractals and pink noise, and Turing machines Get Jupyter notebooks filled with starter code and solutions to help you re-implement and extend original experiments in complexity; and models of computation like Turmites, Turing machines, and

cellular automata Explore the philosophy of science, including the nature of scientific laws, theory choice, and realism and instrumentalism Ideal as a text for a course on computational modeling in Python, Think Complexity also helps self-learners gain valuable experience with topics and ideas they might not encounter otherwise. Think Data Structures Addison-Wesley Professional bull; Demonstrates how Python is the perfect language for text-processing functions. bull; Provides practical pointers and tips that emphasize

efficient, flexible, and maintainable approaches to text-processing challenges. bull; Helps programmers develop solutions for dealing with the increasing amounts of data with which we are all inundated. **The Hitchhiker's Guide to Python** "O'Reilly Media, Inc." The Hitchhiker's Guide to Python takes the journeyman Pythonista to true expertise. More than any other language, Python was created with the philosophy of simplicity and parsimony. Now 25 years old, Python has become the

primary or secondary language (after SQL) for many business users. With popularity comes diversity—and possibly dilution. This guide, collaboratively written by over a hundred members of the Python community, describes best practices currently used by package and application developers. Unlike other books for this audience, *The Hitchhiker's Guide* is light on reusable code and heavier on design philosophy, directing the reader to excellent sources that

already exist. *Supercharged Python* "O'Reilly Media, Inc." Python for Software Design is a concise introduction to software design using the Python programming language. The focus is on the programming process, with special emphasis on debugging. The book includes a wide range of exercises, from short examples to substantial projects, so that students have ample opportunity to practice each new concept. *Learn Python 3 the Hard Way* "O'Reilly Media, Inc." Python para

Todos está diseñado para introducir a los estudiantes en la programación y el desarrollo de software a través de un enfoque en la exploración de datos. Puedes pensar en Python como una herramienta para resolver problemas que están más allá de las capacidades de una simple hoja de cálculo. Python es un lenguaje de programación fácil de usar y sencillo de aprender, disponible de forma gratuita

para equipos Macintosh, Windows, o Linux. Una vez que aprendes Python, puedes utilizarlo el resto de tu carrera sin necesidad de comprar ningún software. Existen copias electrónicas gratuitas de este libro en varios formatos, así como material de soporte para el libro, que puedes encontrar en es.py4e.com. Los materiales del curso están disponibles bajo una Licencia Creative Commons, de modo que

puedes adaptarlos para enseñar tu propio curso de Python.

Think Stats
Cambridge University Press
The new edition of an introduction to computer programming within the context of the visual arts, using the open-source programming language Processing; thoroughly updated throughout. The visual arts are rapidly changing as media moves into the web, mobile devices, and architecture. When designers and artists learn the basics of writing software, they develop a new form of literacy that

enables them to create new media for the present, and to imagine future media that are beyond the capacities of current software tools. This book introduces this new literacy by teaching computer programming within the context of the visual arts. It offers a comprehensive reference and text for Processing (www.processing.org), an open-source programming language that can be used by students, artists, designers, architects, researchers, and anyone who wants to program images, animation, and interactivity. Written by Processing's cofounders, the book offers a

definitive reference for students and professionals. Tutorial chapters make up the bulk of the book; advanced professional projects from such domains as animation, performance, and installation are discussed in interviews with their creators. This second edition has been thoroughly updated. It is the first book to offer in-depth coverage of Processing 2.0 and 3.0, and all examples have been updated for the new syntax. Every chapter has been revised, and new chapters introduce new ways to work with data and geometry. New "synthesis" chapters offer

discussion and worked examples of such topics as sketching with code, modularity, and algorithms. New interviews have been added that cover a wider range of projects. "Extension" chapters are now offered online so they can be updated to keep pace with technological developments in such fields as computer vision and electronics. Interviews SUE.C, Larry Cuba, Mark Hansen, Lynn Hershman Leeson, Jürg Lehni, LettError, Golan Levin and Zachary Lieberman, Benjamin Maus, Manfred Mohr, Ash Nehru, Josh On, Bob Sabiston,

Jennifer Steinkamp, Jared Tarbell, Steph Thirion, Robert Winter
Modeling and Simulation in Python "O'Reilly Media, Inc."
If you know how to program with Python, and know a little about probability, you're ready to tackle Bayesian statistics. This book shows you how to use Python code instead of math to help you learn Bayesian fundamentals. Once you get the math out of the way, you'll be able to apply these techniques to real-world problems.
Python

Programming

"O'Reilly Media, Inc." 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. Think Bayes "O'Reilly Media, Inc." An introductory textbook for people who have not programmed

before. Covers basic MATLAB programming with emphasis on modeling and simulation of physical systems. Python Para Todos "O'Reilly Media, Inc." Quickly find solutions to common programming problems encountered while processing big data. Content is presented in the popular problem-solution format. Look up the programming problem that you want to solve. Read the solution. Apply the solution directly in your own code. Problem solved! PySpark Recipes

covers Hadoop and its shortcomings. The architecture of Spark, PySpark, and RDD are presented. You will learn to apply RDD to solve day-to-day big data problems. Python and NumPy are included and make it easy for new learners of PySpark to understand and adopt the model. What You Will Learn Understand the advanced features of PySpark2 and SparkSQL Optimize your code Program SparkSQL with Python Use Spark Streaming and Spark MLlib with

Python Perform graph analysis with GraphFrames Who This Book Is For Data analysts, Python programmers, big data enthusiasts Django for Beginners "O'Reilly Media, Inc." "Brian Overland makes programming simple. . . . To my amazement, his books explain complicated code clearly enough for anyone to understand." —Art Sedighi, PhD Tapping into the full power of Python doesn't have to be difficult. Supercharged Python is written for people who've learned the fundamentals of the language but want

to take their skills to the next level. After a quick review of Python, the book covers: advanced list and string techniques; all the ways to handle text and binary files; financial applications; advanced techniques for writing classes; generators and decorators; and how to master packages such as Numpy (Numeric Python) to supercharge your applications! Use profilers and "magic methods" to code like a pro Harness the power of regular expressions to process text quickly with a single statement Take advantage of 22 coding shortcuts, along with

performance tips, to save time and optimize your code. Create really useful classes and objects, for games, simulations, money, mathematics, and more. Use multiple modules to build powerful apps while avoiding the “gotchas”. Import packages to dramatically speed up statistical operations—by as much as 100 times! Refer to the five-part language reference to look up fine points of the language. Supercharged Python demonstrates techniques that allow you to write faster and more powerful code, whether you’re manipulating large amounts of data or

building sophisticated applications. Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

Think Bayes Max Hailperin Google and YouTube use Python because it's highly adaptable, easy to maintain, and allows for rapid development. If you want to write high-quality, efficient code that's easily integrated with other languages and tools, this hands-on book will help you be

productive with Python quickly -- whether you're new to programming or just new to Python. It's an easy-to-follow self-paced tutorial, based on author and Python expert Mark Lutz's popular training course. Each chapter contains a stand-alone lesson on a key component of the language, and includes a unique Test Your Knowledge section with practical exercises and quizzes, so you can practice new skills and test your understanding as you go. You'll find

lots of annotated examples and illustrations to help you get started with Python 3.0. Learn about Python's major built-in object types, such as numbers, lists, and dictionaries. Create and process objects using Python statements, and learn Python's general syntax model. Structure and reuse code using functions, Python's basic procedural tool. Learn about Python modules: packages of statements, functions, and other tools, organized into larger components.

Discover Python's object-oriented programming tool for structuring code. Learn about the exception-handling model, and development tools for writing larger programs. Explore advanced Python tools including decorators, descriptors, metaclasses, and Unicode processing. **Python for Everybody** "O'Reilly Media, Inc." Offers a Ruby tutorial featuring fifty-two exercises that cover such topics as installing the Ruby environment, organizing and writing code,

strings and text, object-oriented programming, debugging and automated testing, and basic game development. *Text Processing in Python* "O'Reilly Media, Inc." Currently used at many colleges, universities, and high schools, this hands-on introduction to computer science is ideal for people with little or no programming experience. The goal of this concise book is not just to teach you Java, but to help you think like a computer scientist. You'll learn how to program—a useful skill by itself—but you'll also discover how to use programming as a

means to an end. Authors Allen Downey and Chris Mayfield start with the most basic concepts and gradually move into topics that are more complex, such as recursion and object-oriented programming. Each brief chapter covers the material for one week of a college course and includes exercises to help you practice what you've learned. Learn one concept at a time: tackle complex topics in a series of small steps with examples. Understand how to formulate problems, think creatively about solutions, and write programs clearly and accurately. Determine which development

techniques work best for you, and practice the important skill of debugging. Learn relationships among input and output, decisions and loops, classes and methods, strings and arrays. Work on exercises involving word games, graphics, puzzles, and playing cards. The updated second edition of Think Java also features new chapters on polymorphism and data processing, as well as content covering changes through Java 12.

Think Python
Oxford
University Press,
USA
Python
Programming is

designed as a textbook to fulfil the requirements of the first-level course in Python programming. It is suited for undergraduate degree students of computer science engineering, IT as well as computer applications. This book will enable students to apply the Python programming concepts in solving real-world problems. The book begins with an introduction to computers, problem solving approaches,

programming languages, object oriented programming, and Python programming. Separate chapters dealing with the important constructs of Python language such as control statements, functions, strings, files, data structures, classes and objects, inheritance, operator overloading, and exceptions are provided in the book.