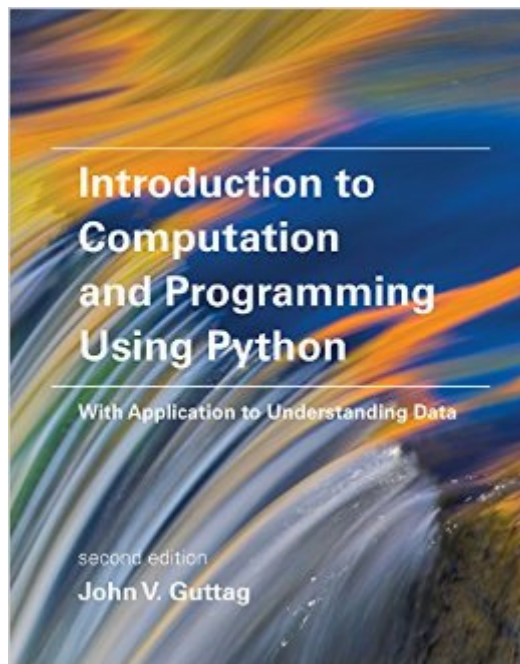# Introduction To Computation And Programming Using Python: With Application To Understanding Data (MIT Press)

Synopsis

This book introduces students with little or no prior programming experience to the art of computational problem solving using Python and various Python libraries, including PyLab. It provides students with skills that will enable them to make productive use of computational techniques, including some of the tools and techniques of data science for using computation to model and interpret data. The book is based on an MIT course (which became the most popular course offered through MIT's OpenCourseWare) and was developed for use not only in a conventional classroom but in in a massive open online course (MOOC). This new edition has been updated for Python 3, reorganized to make it easier to use for courses that cover only a subset of the material, and offers additional material including five new chapters.Students are introduced to Python and the basics of programming in the context of such computational concepts and techniques as exhaustive enumeration, bisection search, and efficient approximation algorithms. Although it covers such traditional topics as computational complexity and simple algorithms, the book focuses on a wide range of topics not found in most introductory texts, including information visualization, simulations to model randomness, computational techniques to understand data, and statistical techniques that inform (and misinform) as well as two related but relatively advanced topics: optimization problems and dynamic programming. This edition offers expanded material on statistics and machine learning and new chapters on Frequentist and Bayesian statistics.

Book Information

File Size: 13786 KB

Print Length: 472 pages

Publisher: The MIT Press; 2 edition (August 8, 2016)

Publication Date: August 8, 2016

Sold by:Â Digital Services LLC

Language: English

ASIN: B01K6F2236

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Enabled

Best Sellers Rank: #65,787 Paid in Kindle Store (See Top 100 Paid in Kindle Store)   #29 inÂ Kindle

Introduction to Computation and Programming Using Python: With Application to Understanding Data (MIT Press) PYTHON: Python in 8 Hours, For Beginners, Learn Python Fast! A Smart Way to Learn Python, Plain & Simple, Learn Python Programming Language in Easy Steps, A Beginner's Guide, Start Coding Today! Big Data, MapReduce, Hadoop, and Spark with Python: Master Big Data Analytics and Data Wrangling with MapReduce Fundamentals using Hadoop, Spark, and Python Programming Raspberry Pi 3: Getting Started With Python (Programming Raspberry Pi 3, Raspberry Pi 3 User Guide, Python Programming, Raspberry Pi 3 with Python Programming) Data Analytics: Practical Data Analysis and Statistical Guide to Transform and Evolve Any Business Leveraging the Power of Data Analytics, Data Science, ... (Hacking Freedom and Data Driven Book 2) Python: Ultimate Crash Course to Learn It Well and Become an Expert in Python Programming (Hands-on Project, Learn Coding Fast, Machine Learning, Data Science) Swift and Python Programming Guide: Programming Language For Beginners: Learn in a Day! Box Set Collection (Swift, Python, JAVA, C++. PHP) Mobile Apps: Python and HTML: Programming Guide: Learn In A Day (Python, Swift, HTML, Apps) Python: Practical Python Programming For Beginners and Experts (Beginner Guide) Hacking: Hacking Made Easy 1: Beginners: Python: Python Programming For Beginners, Computer Science, Computer Programming Introducing Data Science: Big Data, Machine Learning, and more, using Python tools Quantifying Life: A Symbiosis of Computation, Mathematics, and Biology Raspberry Pi 3: Get Started With Raspberry Pi 3 - A Simple Guide To Understanding And Programming Raspberry Pi 3 (Raspberry Pi 3 User Guide, Python Programming, Mathematica Programming) Python: Complete Crash Course for Becoming an Expert in Python Programming (2nd Edition) Python: A Beginner to Expert Guide to Learning the basics of Python Programming (Computer Science Series) Computer Programming Box Set (4 in 1): Linux, Raspberry Pi, Evernote, and Python Programming for Beginners (Computer Programming & Operating Systems) Introduction to Computing Using Python: An Application Development Focus, 2nd Edition Python : The Ultimate Python Quickstart Guide - From Beginner To Expert (Hands On Projects, Machine Learning, Learn Coding Fast, Learning code, Database) Python: Python Made Easy 1: Hacking: Beginners Quantum Computation with Topological Codes: From Qubit to Topological Fault-Tolerance (SpringerBriefs in Mathematical Physics)