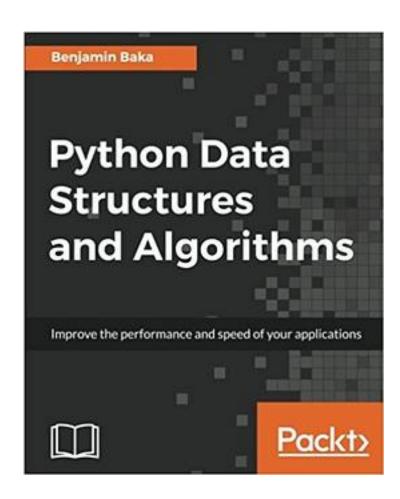# Python Data Structures and Algorithms

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著者:Benjamin Baka

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Key Features

A step by step guide, which will provide you with a thorough discussion on the analysis and design of fundamental Python data structures.Get a better understanding of

advanced Python concepts such as big-o notation, dynamic programming, and functional data structures.Explore illustrations to present data structures and algorithms, as well as their analysis, in a clear, visual manner.

Book Description

Data structures allow you to organize data in a particular way efficiently. They are critical to any problem, provide a complete solution, and act like reusable code.

In this book, you will learn the essential Python data structures and the most common algorithms.

With this easy-to-read book, you will be able to understand the power of linked lists, double linked lists, and circular linked lists. You will be able to create complex data structures such as graphs, stacks and queues. We will explore the application of binary searches and binary search trees. You will learn the common techniques and structures used in tasks such as preprocessing, modeling, and transforming data. We will also discuss how to organize your code in a manageable, consistent, and extendable way. The book will explore in detail sorting algorithms such as bubble sort, selection sort, insertion sort, and merge sort.

By the end of the book, you will learn how to build components that are easy to understand, debug, and use in different applications.

What you will learn

Gain a solid understanding of Python data structures.Build sophisticated data applications.Understand the common programming patterns and algorithms used in Python data science.Write efficient robust code.

About the Author

Benjamin Baka works as a software developer and has over 10 years, experience in programming. He is a graduate of Kwame Nkrumah University of Science and Technology and a member of the Linux Accra User Group. Notable in his language toolset are C, C++, Java, Python, and Ruby. He has a huge interest in algorithms and finds them a good intellectual exercise.

He is a technology strategist and software engineer at mPedigree Network, weaving together a dizzying array of technologies in combating counterfeiting activities, empowering consumers in Ghana, Nigeria, and Kenya to name a few.

In his spare time, he enjoys playing the bass guitar and listening to silence. You can find him on his blog.

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Python objects, types and expressionsPython data types and structuresPrinciples of data structure designLists and pointer structuresStacks and QueuesTreesHashing and symbol tablesGraphs and other algorithmsSearchingSortingSelction AlgorithmsDesign Ttechniques and SstrategiesImplementations, applications and tools

作者介绍:

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评论

错误有点多啊，typo，编辑，内容都有，还有个缺点是不同层次标题的字体差异太小，需要回看目录来获知。获取errata貌似要注册，注册又不成功（感觉是要番羽土啬），烦恼。

趁着免费的时候下载电子书来看的，里面讲了一些比较基础的东西：链表、栈和队列、堆等等，最后还涉及了一些机器学习和数据处理的内容。算是不错的入门，发现有一处拼写错误在图论那一章。

其实我觉得算法写的so so，同时深度不够，但是作为简单的复习还是可以的。

A basic tour in the world of algorithms, can help beginners build an overall understanding of what's out there.

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书评

There are many "deep" books out there. Some are talking about how to use C/C++/Java to implement algorithms. They are important, more detailed and certainly deeper than this book. The reason I chose this book to begin, is because it is not that deep. It's l...

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