

<<数据结构与算法分析C++描述>>

图书基本信息

书名：<<数据结构与算法分析C++描述>>

13位ISBN编号：9787302057024

10位ISBN编号：7302057028

出版时间：2002-9

出版时间：清华大学出版社

作者：Mark Allen Weiss

页数：588

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<数据结构与算法分析C++描述>>

内容概要

此书是作者1996年出版“ Algorithm , Data Structures , and Problem Solving with C++ ” 的缩编本，原书正文807页，作者对内容包括算法重新作了编排，《大学计算机教育国外著名教材教参系列：Data Structures & Algorithm Analysis in C++》正文575页共分12章，其内容依次为C++简介；算法分析；表、栈与队列；树；散列；优先队列（堆）；排序；并查集；图；算法设计技术；缓冲分析；高级数据结构和实现。

附录中给出类设计的模板。

《大学计算机教育国外著名教材教参系列：Data Structures & Algorithm Analysis in C++》内容基本符合目前《数据结构与算法》大纲的要求，比较适合当前的教学需要。

内容编排上较为合理，篇幅较小，叙述清楚，适合于本科高年级和研究生使用。

<<数据结构与算法分析C++描述>>

书籍目录

Chapter 1 Introduction 1.1 What's the Book About? 1.2 Mathematics Review 1.3 A Brief Introduction to Recursion 1.4 C++ Classes 1.5 C++ Details 1.6 Templates 1.7 Using Matrices

Chapter 2 Algorithm Analysis 2.1 Mathematical Background 2.2 Model 2.3 What to Analyze 2.4 Running Time Calculations

Chapter 3 Lists, Stacks, and Queues 3.1 Abstract Data Types (ADTS) 3.2 The List ADT 3.3 The Stack ADT 3.4 The Queue ADT

Chapter 4 Trees 4.1 Preliminaries 4.2 Binary Trees 4.3 The Search Tree ADT——Binary Search Trees 4.4 AVL Trees 4.5 Splay Trees 4.6 Tree Traversals (Revisited) 4.7 B-Trees

Chapter 5 Hashing 5.1 General Idea 5.2 Hash Function 5.3 Separate Chaining 5.4 Open Addressing 5.5 Rehashing 5.6 Extendible Hashing

Chapter 6 Priority Queues (Heaps) 6.1 Model 6.2 Simple Implementations 6.3 Binary Heap 6.4 Applications of Priority Queues 6.5 d-Heaps 6.6 Leftist Heaps 6.7 Skew Heaps 6.8 Binomial Queues

Chapter 7 Sorting 7.1 Preliminaries 7.2 Insertion Sort 7.3 A Lower Bound for Simple Sorting Algorithms 7.4 Shellsort 7.5 Heapsort 7.6 Mergesort 7.7 Quicksort 7.8 Indirect Sorting 7.9 A General Lower Bound for Sorting 7.10 Bucket Sort 7.11 External Sorting

Chapter 8 The Disjoint Set ADT 8.1 Equivalence Relations 8.2 The Dynamic Equivalence Problem 8.3 Basic Data Structure 8.4 Smart Union Algorithms 8.5 Path Compression 8.6 Worst Case for Union-by-Rank and Path Compression 8.7 An Application

Chapter 9 Graph Algorithms 9.1 Definitions 9.2 Topological Sort 9.3 Shortest-Path Algorithms 9.4 Network Flow Problems 9.5 Minimum Spanning Tree 9.6 Applications of Depth-First Search 9.7 Introduction to NP-Completeness

Chapter 10 Algorithm Design Techniques 10.1 Greedy Algorithms 10.2 Divide and Conquer 10.3 Dynamic Programming 10.4 Randomized Algorithms 10.5 Backtracking Algorithms

Chapter 11 Amortized Analysis 11.1 An Unrelated Puzzle 11.2 Binomial Queues 11.3 Skew Heaps 11.4 Fibonacci Heaps 11.5 Splay Trees

Chapter 12 Advanced Data Structures and Implementation 12.1 Top-Down Splay Trees 12.2 Red-Black Trees 12.3 Deterministic Skip Lists 12.4 AA-Trees 12.5 Treaps 12.6 k-d Trees 12.7 Pairing Heaps

Appendix A The Standard Template Library A.1 Introduction A.2 Basic STL Concepts A.3 Unordered Sequences : vector and list A.4 Sets A.5 Maps A.6 Example : Generating a Concordance A.7 Example : Shortest-Path Calculation A.8 Other STL Features

Appendix B vector and string Classes B.1 First-Class versus Second-Class Objects B.2 vector Class B.3 string Class

Index

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>