
Algorithmic References

Contents

Contents	1
1 Data Structures	2
1.1 Priority Queue	2
2 Graph Algorithms	3
2.1 BFS	3
2.2 DFS	3
2.3 Dijkstra	3
2.4 Dinic	3
2.5 Edmond	3
2.6 EdmondsKarp	3
2.7 Ford-Fulkerson	3
2.8 Floyd-Warshall	4
2.9 Kahn	4
2.10 Kruskal	4
2.11 Minimax	4
2.12 Prim	4
3 String Processing	5
3.1 Hamming Distance	5
3.2 Suffix Trie	5
3.3 Suffix Tree	5
3.4 Suffix Array	5

Chapter 1

Data Structures

1.1 Priority Queue

Priority Queue in Java

Chapter 2

Graph Algorithms

2.1 Articulation Vertices

Articulation Vertices and Cut Vertices

2.2 BFS

Bread-First Search

2.3 Bridges

Bridge Finding Algorithm

2.4 DFS

Depth-First Search

2.5 Dijkstra

Dijkstra's Shortest Path algorithm.

2.6 Dinic

Dinic's algorithm

2.7 Edmond

Edmond's Algorithm

2.8 EdmondsKarp

EdmondKarp Algorithm

2.9 Ford-Fulkerson

Ford-Fulkerson algorithm

2.10 Floyd-Warshall

Floyd-Warshall's algorithm

2.11 Kahn

Khan's Algorithm

2.12 Kruskal

Kruskal's Algorithm

2.13 Minimax

Minimax Algorithm

2.14 Minimum Vertex Cover

Minimum Vertex Cover

2.15 Prim

Prim's algorithm

2.16 Shortest Disjoint Paths

Shortest Disjoint Paths algorithm

Chapter 3

String Processing

3.1 Edit Distance

Edit Distance

3.2 Hamming Distance

Hamming Distance

3.3 Knuth Morris Pratt

Knuth Morris Pratt algorithm

3.4 Suffix Trie

Suffix Tries ("try")

3.5 Suffix Tree

Suffix Trees

3.6 Suffix Array

Suffix Arrays

Chapter 4

Computational Geometry

4.1 Graham's Scan

Graham's Scan

4.2 Points

Distance Between

Distance Between Points

4.3 Lines

Line to Point

Distance between line and point

Rotation

Rotations

4.4 Polygons

Area

Area of Polygon

Perimeter

Perimeter of Polygon