

Boruvka's Algorithm

Student Number: 690065435

December 2022

1 Principles of Boruvka's Algorithm

Boruvka's algorithm (also known as Sollin's algorithm) is a greedy algorithm that finds a minimum spanning tree for a connected, edge-weighted undirected graph. It is a divide-and-conquer algorithm that is based on the idea of building a forest of trees. At each step, it finds the cheapest edge that connects two different trees and combines the trees into a single tree. The algorithm continues until there is only one tree left, which is the minimum spanning tree.

2 Pseudocode

3 Time and Space Complexity Analysis

4 Limitations and Constraints

5 Real-World Applications

References