

Tutorial 09 - More Range Search
CS 240E Winter 2022
University of Waterloo
Monday, March 14th, 2022

1. **Priority Search Tree:**

Show how to build a priority search tree in $O(n \log n)$ worst-case time.

2. **Range Tree:**

Prove or disprove: For any set of points in general position, the range tree uses $\Omega(n \log n)$ space.

3. **KD-Tree:**

Create a set of n points and a range-query such that doing the range-query on the kd -tree of the points requires $\Omega(\sqrt{n})$ boundary-nodes