

**CS509 PG Software Lab**  
**Observation Report of Experiments performed on KD-tree**  
**Anuj Rai**  
**2019AIM1003**

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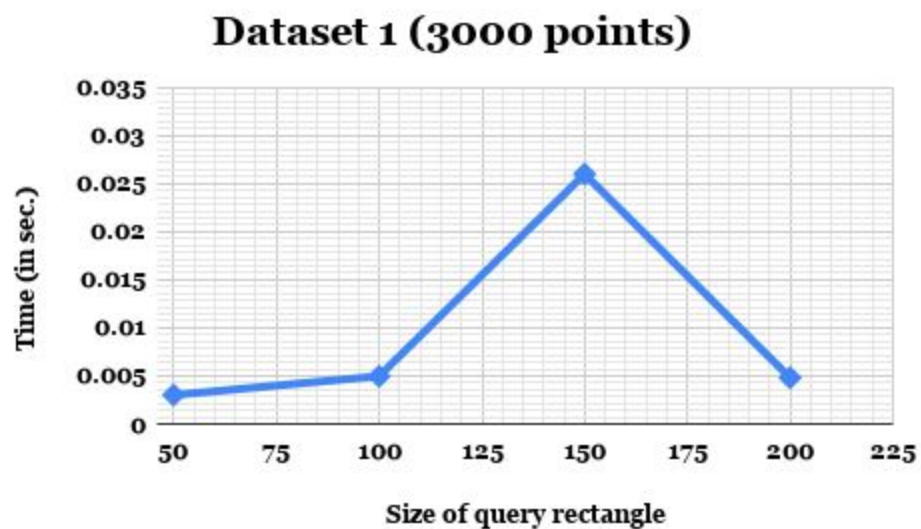
**Experiment 1**

Input Set	Height of Generated KD-tree
Dataset 1 (3000 points)	10
Dataset 2 (4000 points)	11
Dataset 3 (5000 points)	11

**Experiment 2**

**Input Set:** 3000 points between (0,0) and (90,90)

**Operation:** Range query on rectangles of area 50, 100, 150 and 200.

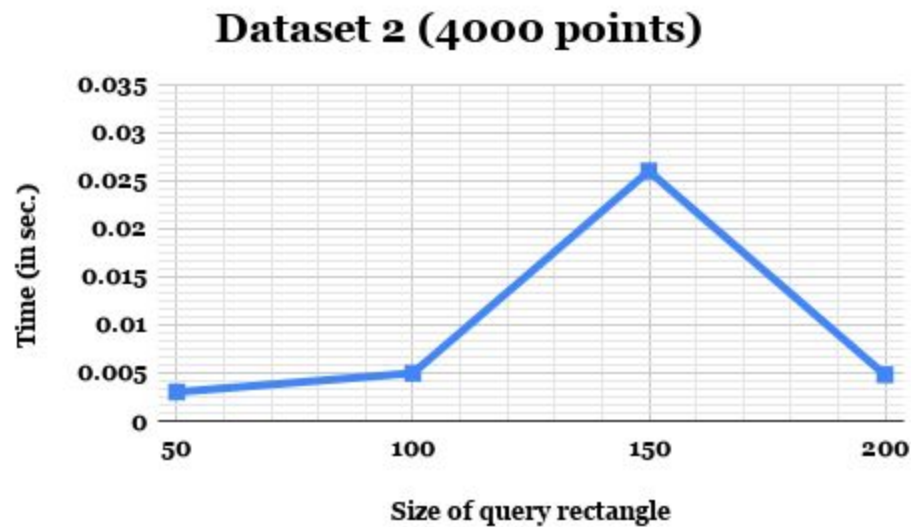


Graph 1: Average running time of range queries on dataset 1

### Experiment 3

**Input Set:** 4000 points between (0,0) and (90,90)

**Operation:** Range query on rectangles of area 50, 100, 150 and 200.

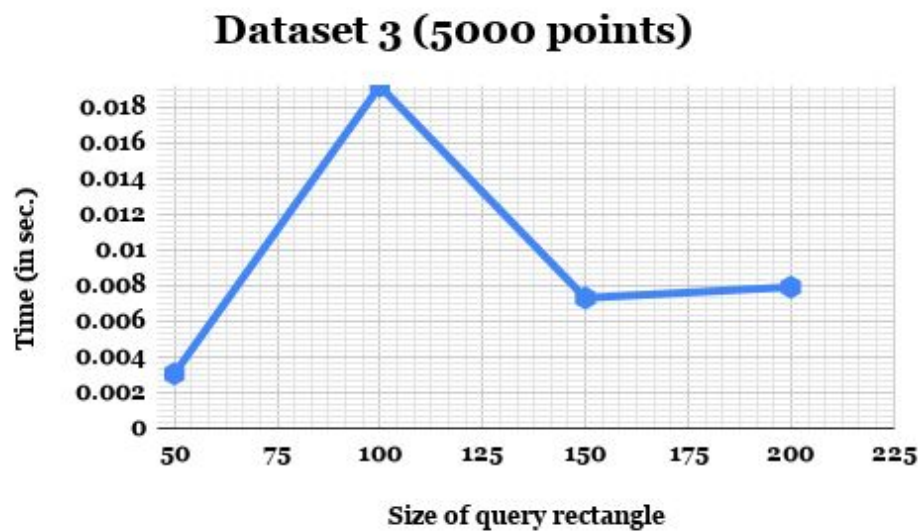


Graph 2: Average running time of range queries on dataset 2

### Experiment 4

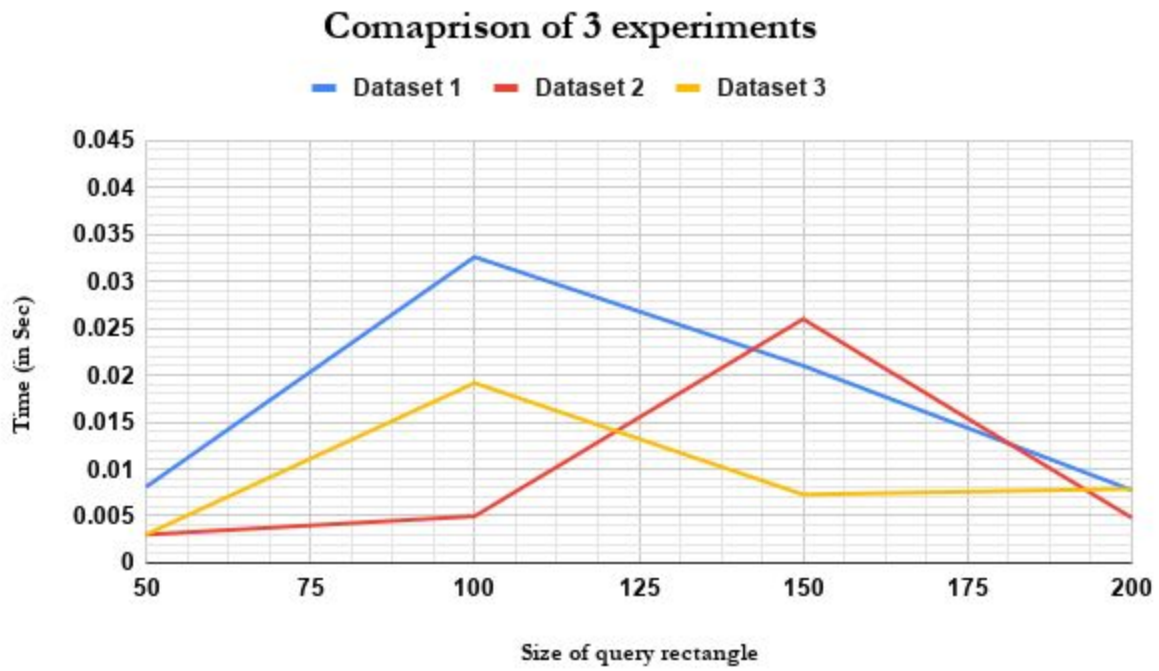
**Input Set:** 5000 points between (0,0) and (90,90)

**Operation:** Range query on rectangles of area 50, 100, 150 and 200.



Graph 3: Average running time of range queries on dataset 3

## Comparison of three observation sets



Graph 4: Average running time of range queries (Comparison)