**AA Assignment 1 Report**

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We certify that this is all our group’s original work. If we took any parts from elsewhere, then they were non-essential parts of the assignment, and they are clearly attributed in our submission. We will show that we agree to this honour code by typing ``Yes": YES.

# **Experimental Setup (~1 page)**

Describe briefly how you generated your data?

What parameter settings you decide to test on, and briefly why?

Generation of scenarios – how did you decide to generate the scenarios? Briefly describe.

Timing - How did you perform the timing? How many tests did you perform and average over for each generated data set?

# **Evaluation (include Diagrams)**

## **Scenario 1 (k-nearest neighbour searches) (~1 page)**

//aa

## **Scenario 2 (Dynamic points set) (~1 page)**

//aa

# **Recommendation (and conclusion, ~0.5 page)**

For different scenarios, which data structures do you recommend to use?

//aa

## **References (~0.5 page)**

* [1] “k-d tree,” Wikipedia. Jul. 12, 2021. Accessed: Sep. 06, 2021. [Online]. Available: https://en.wikipedia.org/w/index.php?title=K-d\_tree&oldid=1033191291
* [2] “algorithm - How to efficiently find k nearest neighbours from a kd tree,” Stack Overflow. https://stackoverflow.com/questions/36603146/how-to-efficiently-find-k-nearest-neighbours-from-a-kd-tree (accessed Sep. 06, 2021).
* [3] “algorithm - How to implement nearest neighbor search using KDTrees?,” Stack Overflow. https://stackoverflow.com/questions/4093392/how-to-implement-nearest-neighbor-search-using-kdtrees (accessed Sep. 06, 2021).
* [4] “K Dimensional Tree | Set 1 (Search and Insert),” GeeksforGeeks, Oct. 31, 2014. https://www.geeksforgeeks.org/k-dimensional-tree/ (accessed Sep. 06, 2021).
* [5] “K Dimensional Tree | Set 3 (Delete),” GeeksforGeeks, Oct. 06, 2015. https://www.geeksforgeeks.org/k-dimensional-tree-set-3-delete/ (accessed Sep. 06, 2021).
* [6] “K Dimensional Tree | Set 3 (Delete),” GeeksforGeeks, Oct. 06, 2015. https://www.geeksforgeeks.org/k-dimensional-tree-set-3-delete/ (accessed Sep. 06, 2021).