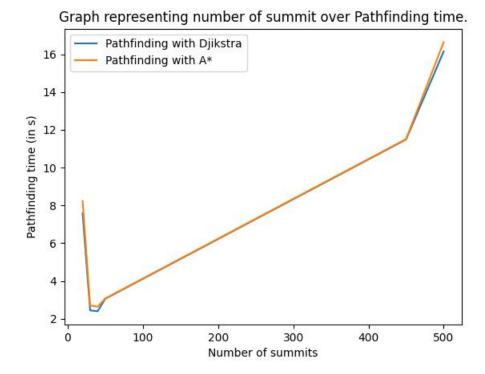
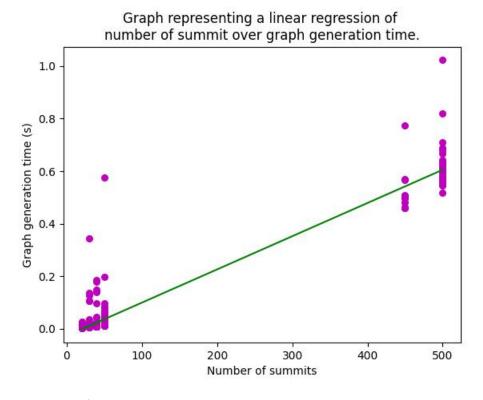
1. Execution time analysis

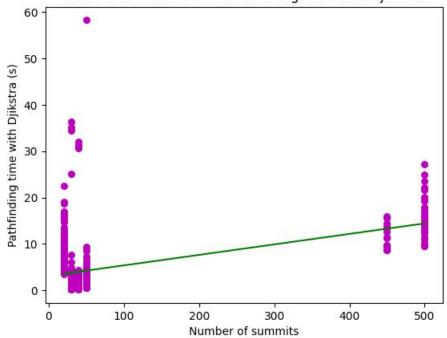


With this graph we can compare the pathfinding algorithm by their respective mean execution time.



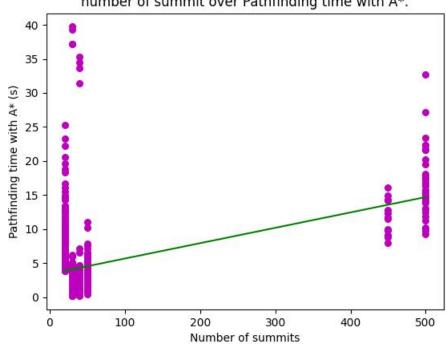
linear regression fx y \sim -0.0267 + 0.0013 * x

Graph representing a linear regression of number of summit over Pathfinding time with Djikstra.

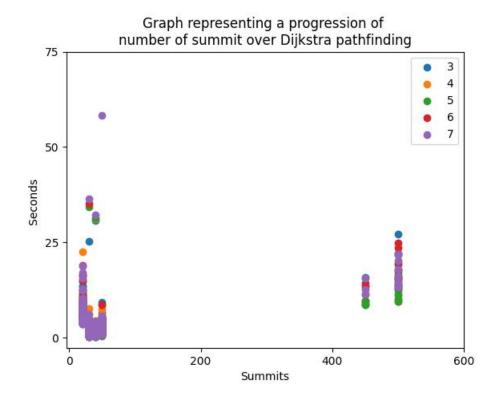


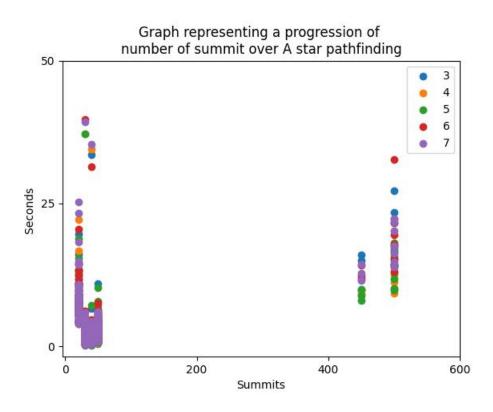
linear regression fx y \sim 3.1138 + 0.0226 * x

Graph representing a linear regression of number of summit over Pathfinding time with A*.

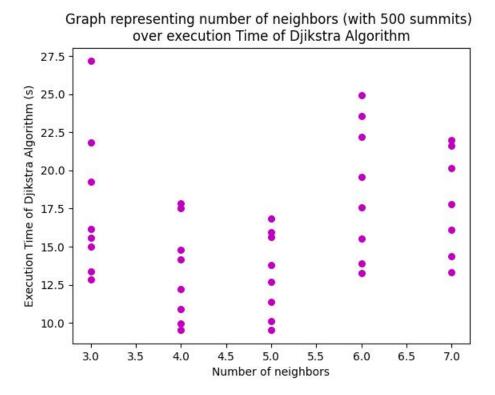


linear regression fx y ~ 3.4119 + 0.0226 * x

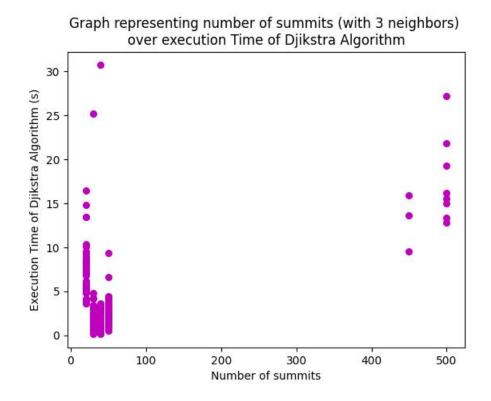




2. Influence of neighbors and summits



We had a graph with a defined number of summits (500) and we can see that when we add neighbors (even a small amount), the execution time grows instantly.



We had a graph with a defined number of neighbors (3) and we can see that when we add summits the execution time grows but we need a large amount of summits to influence the execution time

The conclusion we can make is that the number of neighbors influences more the execution time of the algorithm than the number of summits