

Final Project Goals

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1. General Idea

- a. Our goal for this project is to find the shortest path from one node to another using the [City of Oldenburg Road Network Dataset](#). We would use both a BFS traversal and A* search to find the shortest path as a way to compare efficiency and effectiveness. We would also use a graphic output of a graph in order to create a map based on the given data, and display the determined path in a different color.

2. Traversal

- a. We will use a BFS traversal to get the shortest path between nodes and compare the runtime to that of a A* search algorithm.

3. Algorithms

- a. We will use an A* search algorithm to find the shortest path, and compare runtimes with the BFS algorithm.
- b. After a shortest path is found, we will project the data onto a map based on the data in the CSV file.

4. Deliverables

- a. Image of the map with the shortest path traced on it.
- b. Finding the difference in runtime between a BFS and a A* algorithm in finding the shortest path.