

CS 225 Final Project Goals

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Quick Summary: For my final project, I plan to use the OpenFlights dataset and implement the algorithms listed below to provide flight analytics to the user.

Dataset

- OpenFlights

Traversals

1. BFS (Breadth First Search)
 - a. I want to use BFS to get a list of all airlines by traversing a graph where the nodes are Airport objects and the edges are Route objects.

Algorithms

1. Dijkstra's Algorithm
 - a. I want to use Dijkstra's Algorithm to find the preferred route from one airport to another that minimizes the total amount of distance traveled.
2. Landmark Algorithm
 - a. I want to use the Landmark Algorithm to find the quickest route from one airport to another that travels through a specific state/country that the user picks.
3. PageRank Algorithm
 - a. I want to use the Page Rank algorithm to rank all of the airports provided in the dataset by importance. For example, if Airport A receives more incoming flights from other airports than Airport B, Airport A must be more important than Airport B and it will consequently rank higher.