CS 225 Project Goals

Traversal: Our plan is to use a BFS with the PageRank algorithm. We also will implement a function to simply traverse using BFS.

Complex/Uncovered Option: Implementing a PageRank algorithm on a directed graph built from data chosen in Stanford Datasets list (http://snap.stanford.edu/data). Specifically, running the PageRank algorithm on the GoogleWeb dataset (http://snap.stanford.edu/data/web-Google.html) or the StackOverflow dataset (sx-stackoverflow). From a conceptual perspective, running the PageRank algorithms on these datasets involve determining which node has the most connections to other nodes. For example, for the GoogleWeb dataset, we would be able to determine more relevant search results given an input.

Other Option: Implementing a Shortest Path (Dijsktra's Algorithm) on an undirected, weighted graph built from the Oldenburg road network dataset (https://www.cs.utah.edu/~lifeifei/SpatialDataset.htm). We explored and could also choose from the Facebook dataset (http://snap.stanford.edu/data/ego-Facebook.html) or the GitHub dataset (http://snap.stanford.edu/data/github-social.html). From a conceptual perspective we compile a list of possible paths that are the shortest/most optimal paths (least total weight). For example, for the Facebook dataset, we would be able to determine all possible options a pair of people could share a mutual connection and then pick the option which minimizes the number of links/connections.