Ashley Anyanwu

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Project Report

The data set I used for my project was a snap Amazon co-purchasing network. It’s based on customers who bought an item also bought a feature of the item. Since I am planning to minor in business and have experience in sales, I thought it would be a great project to determine if the relevancy of having co-items as a suggestion is effective or not. The graph is represented as a list of edges. So, if product I is frequently co-purchased with product j, the graph contains a directed edge from i to j. I decided to use a breadth depth graph algorithm for this to determine the distances between the pairs of vertices. For most of the nodes, the distance between the pairs was relatively small. However, there were some outlandish skews with large distances. More specifically around the 40thedge, the pairs started to become less correlated. The data set is very large, so I couldn’t go through everything, but the sample sized I used was enough for me to get an understanding of the algorithm we learned in class. I learned a lot throughout this project. Some troubled areas for me were in my terminal. I do believe it was a memory issue though. I also originally had issues reading the file as well, but after reading a lot of rust information plus going back to the lectures I finally was able to do it. Overall, it was challenging , especially with the rust book not being too descriptive when it came to graphs , so my only true reliable source were lecture videos .