CHARLES NORDEN, #11606177 — CPTS-315

PROJECT PROPOSAL

I have had an interest in learning about the stock market for some time, and I would like to take advantage of this opportunity to learn more about the trends and possibly determine the 'healthiness' of certain stocks by their economic sectors.

Given the fact that I know very little about finance and economy except for some vague ideas that I learned from Economics 101 a few years ago, I am aware that this project is greatly challenging. This means that I will need to research on the true definitions of certain metrics such 'Trend Indicator' and 'Sector Performance' and so on, and how they are related to one another.

Ultimately, my goal is to learn and equip myself with a little more knowledge about this field by answering these questions:

- What can I learn from watching the movement of certain stocks over a certain period of time?
- What qualities can I extract from a quarterly performance versus a yearly performance versus a few-year (3+) performance?
- Does sector performance really determine the stability of a particular sector?
- What determine the resilience of a particular industry in case of a economic instability?

I hope to apply some of the knowledge I learn from this class, particularly the item-item collaborative filtering model (and possibly other similar models as well if needed) to help me answer these questions.