

CSC310 – Final Project Proposal

Title: Ticker Performance Prediction

Team Members: Yeury Galva Liriano, Hennjer Alcantara, Phidias Mendez

Kind of Project: Web Application

- The kind of app you want to build - perhaps include a mock up of the proposed GUI

Our goal is to build a web application that predicts how much a stock will cost in a given estimated time by the user. For instance, if the user wanted to predict how much an Apple stock would be tomorrow, we would use a prediction model to do that, the user will have a chance to choose which prediction model to use from the options we provide. Might be restricted to only a few stocks.

- The kind of data you want to apply your app to with some basic summary statistics

Our application will have stocks data gathered from an API that is still undecided. The idea is that each stock will have its current price, and several prices from before. This would allow us to make our prediction models.

- A list of the responsibilities of each of the team members
 - a. Front-End (Hennjer)
 - Developing a Web App using HTML/CSS
 - Allows the user to pick which stock he wants to evaluate, what evaluation method he wants to use, and lastly, how far ahead the user wants to predict.
 - b. Back-end (Phidias and Yeury)
 - Querying database information that stores ticker information
 - Create a model and predict an outcome using Sci-Kit learn

- Using Flask to create a RESTful API architecture that communicates with the front-end
- A list of milestones.

We will be having about 5-6 milestones. We broke down the two weeks project into 5-6 sections. Milestones will be due every other day.

- a. Milestone 1:
 - i. Create the design of what we are going to implement. This will require a visual idea of each of our roles.
 - b. Milestone 2:
 - i. Hennjer: Implement the structure of front end design.
 - ii. Yeury: start interacting with the database
 - iii. Phidias: Create the class to predict stock using a uni-layer ANN model
 - c. Milestone 3:
 - i. Hennjer: Finish Web App design.
 - ii. Yeury: Make sure, database is working properly, then move on to interact with the front end
 - iii. Phidias: Create the class to predict stock using a multi-layer ANN model
 - d. Milestone 4:
 - i. Hennjer: Make the Web App more user friendly/Improve user experience.
 - ii. Yeury: Make sure everything is working as supposed. Then move on to handling edge cases
 - iii. Phidias: Use database information to make predictions
 - e. Milestone 5:
 - i. Hennjer: Help Yeury/Phidias with whatever they need.
 - ii. Yeury: Continue to work on improving edge cases
 - iii. Phidias: Setting up the backend with Flask & responding to requests
 - f. Milestone 6 (only if necessary):
 - a. Go over everything as a team, and make sure the app is working as supposed to.
- The basic technology you want to use for your project
 - a. HTML5

- b. CSS3
- c. Bootstrap
- d. Flask
- e. Python
- f. SQL
- g. AWS or MySQL