460 Term Project

Alexander Cimini

ECNS 460

Overview/Plan

For the term project, the plan is to create a machine-learning model for predictive analysis of a stock price or another predetermined variable (Volatility, volume, etc.) and to test it against actual data. The plan is to use the Alpaca API and other online resources to capture data that I believe will be needed and combine it into a large dataset. If it becomes too large, then a form of cloud computing might be necessary for it (I don't think it will be). Then using what I have collected I will use what is in the ML slides and other ML resources/literature to construct a sound but basic model. Then using this model, I will compare it to the non-test data to what the model predicts the price (or another variable I am looking for) to understand how good the model is and if it is applicable.

Types of Data to be Collected and Their Potential Source:

Data	Source
Historical Prices	Alpaca API / Yahoo Finance
Trading Volume	Alpaca API / Yahoo Finance
Technical Indicators	Self-Constructed
Interest Rates	FED Data
Inflation	FED Data
Exchange Rates	Yahoo Finance / FED Data

*Some of these are not concrete and may change as I continue to read literature around ML and what should go along with it