Capstone Project Proposal – Plamen Stilyianov

**Project Title**:

“Predicting Stock Price Movements using Machine Learning based on Different Categories of News Articles”

**Project Question**:

“How can Machine Learning techniques be applied to predict stock movement based on historical and live market data and relevant historical and live news data.

**Project Description**:

“This project will use Machine Learning techniques to predict the stock movement based on historical market data and relevant historical news data, also the live market data and live news data will show the current trend while the model will show the predictive trend of the stock”

**Data Sourcing**: <https://alpaca.markets/>

Alpaca offers simple, modern API-first solutions to enable anyone, either individuals or businesses, to connect applications and build algorithms to buy and sell stocks or crypto.

Whether you are launching an app to access the US equities market or deploy algorithmic trading-strategies with stocks and crypto, Alpaca has an API for you.

**Expected Results**:

I expect the current application model to predict with high confidence the right direction of the stock movement, where it can be extending for buying and selling of stock depending of the model prediction signal

**Importance of the Question:**

As the data is very specific and limited on features, it limits the choice of classification models. For finding of a pattern for prediction at the moment is unknown. There are two historical datasets and incoming live data for those two datasets, which needs to be analysed what Machine Learning techniques to be used with.