**Machine Learning Project Proposal**

Official Title: **ML Stock Advisor**

Project Code Name: **Totally Not A Goldfish**

Group Members: **Grant Harrell, Aubrey, Trumbo, Nolan Henderson**

Research Question: ***Can you predict whether specific stock will close higher or lower than its opening value using a ML model.***

Programming Language and libraries: **We will be programming in Python and using the library yfinance which allows us to pull data from Yahoo Stocks to generate our own dataset**

Data Set: **A dataset will be created using the historical data from Yahoo Finance**

Machine Learning methods:

**We will attempt to train each of the models used in class, and maybe some other’s to find the highest success rate.**

Validation: ***We will primarily rely on a Test/Train Split***

Final Product: **Our model will be trained on one stock specifically and operate with an above 51% success at positively predicting whether the stock will close higher or lower than the value at which it opened.**

Milestones and Timeline:

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| --- | --- | --- | --- | --- | --- |
| **Milestone** | **Description** | **Completion Date** | **Grant Deliverable** | **Aubrey Deliverable** | **Nolan Deliverable** |
| 1 | Create TTS dataset | 4/7 | Finalized Dataset | Finalized Dataset | Finalized Dataset |
| 2 | Train respective model and find accuracy | 4/22 | NN, RF | DT, KN | GNB, DNN |
| 3 | Create UI | 4/29 |  |  |  |

Github link: <https://github.com/NolanHenderson/TNAG>