Stock Market Prediction w/ News Article Reaction

Purpose

- Historical prices aren't tell-all
- Faster reaction times to reported events

Implementation

- Scan, summarize, and extract keywords
- Evaluate the impact on stock price
- Generate model
- Pass in recent/new articles
- Add predictions to price dataset
- Model and predict with new dataset

Features

- SVM – RBF Kernel
- Neural Networks
    - Activation Func.: Identity, Sigmoid, RELU, Tanh
    - Adaptive learning rates
- Feature Selection
    - False positive, false discovery, family-wise error

Results

- Daily SVM: 50.45%, 54.94%
- Daily Nnet: 50.03%, 55.02%
- Daily SVM w/ news: 52.12%, 53.16%
- Daily Nnet w/ news: 51.13%, 57.73%