

## Model Metrics

### **NLP of Fed. Reserve Speeches To Predict Stock Market Trend**

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Model Features (importance): The first 6 most important features in our RF Classifier model are speech text features, then followed by one past market metric:

- 1) "personal"
- 2) "widespread"
- 3) "importance"
- 4) "held"
- 5) "government"
- 6) "confidence"
- 7) Market average change % previous 7d rolling
- 8) "flows"

Due to the limitations of the relatively small data set, the following model performance metrics are calculated on a 4-fold Cross-Validation prediction basis. It is important to note that the "positive" class is defined as a predicted increase in market value, which is the minority class in our dataset.

Accuracy: 0.72

Precision: 0.58

Recall: 0.77

F1 Score: 0.66

