Stock Watcher

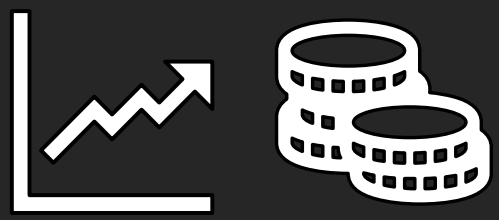
IDENTIFY POSSIBLE INSTANCES OF INSIDER TRADING BY ELECTED U.S. LAWMAKERS

Motivation

This app calculates the probability of increase in a company's stock price immediately after a U.S. lawmaker has bought or sold stock.

Probability predictions from this app can benefit:

Retail investors while picking their own stocks



Watchdog groups while identifying possible cases of insider trading

Live App

The app is currently hosted online using AWS Elastic Container Service (ECS).

Link to the live app is provided below:

http://msia423-853098888.us-east-1.elb.amazonaws.com/

Data and RDS

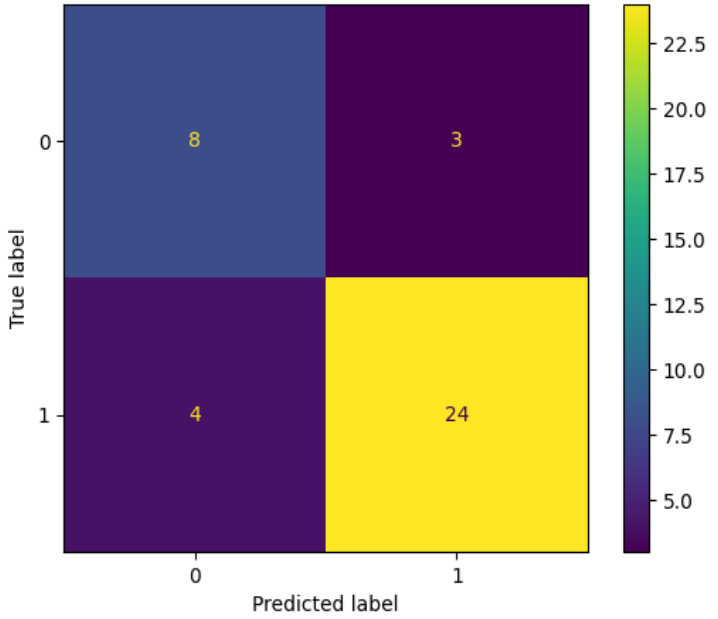
Transaction Data for this app was collected using the House Stock Watcher API. Members of Congress must file periodic reports of their asset transactions under the STOCK Act. The API compiles information regarding transaction value, ticker name, Congress member, transaction type (sale/purchase), stock ownership (full/partial), etc.

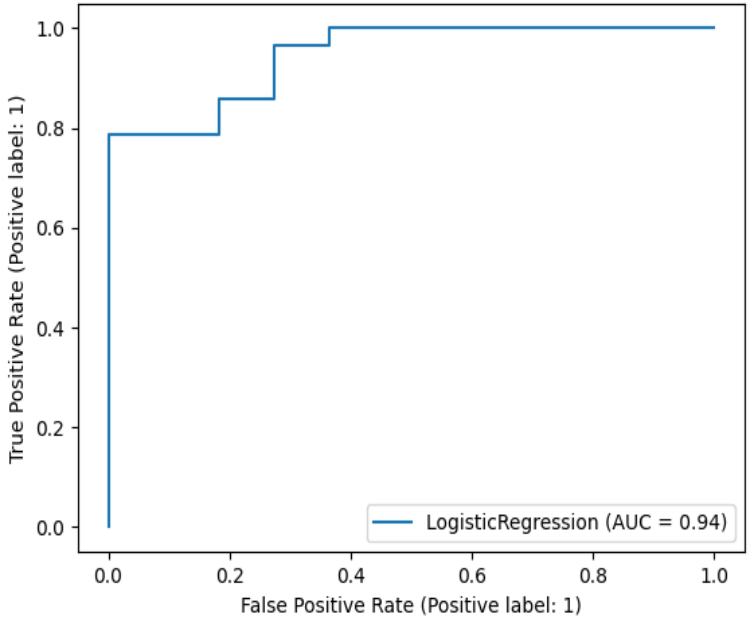
RDS is used to return information about recent transactions made by the specific Congress official selected by the app's user.

Predictive Model

An online model (Logistic Regression) was leveraged for the purpose of binary classification. A response value of 1 is assigned if the stock price increases soon after a Congress official purchases/sells stock, and 0 if the stock price decreases soon after.

Accuracy (0.83) and AUC score (0.94) are used as metrics to evaluate the model's performance.





Insights

Largest Regression Coefficients (after scaling):

Congress Member's Name	Coefficient Value
Donald Sternoff Beyer	0.47980
Nancy Pelosi	0.35867

Democrat for CA12

Democrat for VA08

Retail investors can mimic their trade strategies for higher ROI

Watchdog groups should determine whether they're great investors or using non-public information for personal gains

Thank You

Contact Details

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