

FLORIDA INTERNATIONAL UNIVERSITY



Stock Picker

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Introduction

- The Stock analysis behind the algorithm of the bot addresses multiple issues in an expanding world of information, where the fundamental and technical analysis can get lost due to information overload. Continuous human monitoring of stocks can be tedious, and prone to error. An analysis bot is able to incorporate new information and adapt to market conditions.

Problems

- There are multiple issues that are faced by investors of financial markets.
- -Information Overload
- -Time Constraints
- -Technical Complexity
- -Emotional Decision Making
- -Monitoring/Market Sentiment Analysis

Requirements

- The bot should be able to aggregate a set of data sources from scraping CSV files that includes financial statements, prices, sentiments, and economic factors from the NASDAQ and Yahoo. Risk management with associated stocks and predictive analysis based on historical data.

System Design

- The Stock bot is ran using Python that runs Jupyter lab and notebooks that connects to the scraper program. That is supposed to connect to the python client for nextCloud where files can be stored and read.

Implementation

- The program scraps together 30 stocks that include indexes also. The past 5 years are analyzed and combined together into CSV files that display prints out the weekly recommendations of what stocks to buy.

Summary

- The bot was designed to assist investors to make informed decisions on which options to purchase based on its analysis. The bot will systematically scrape and compile CSV files from optimal sources like Yahoo and then organizes that data for efficient analysis.