Tradequity Trading Bot

Objective/Aim

This project aims at developing a trading bot web application which could predict the share price of equity stocks in National Stock Exchange(NSE). The registered user will get notified to buy,sell or hold a particular share via email.

Introduction

The Tradequity Trading Bot collects live share price of all the equity stocks in NSE through the Alpha Vantage API which provides live share prices for free of cost. The bot predicts the share price in the future by using the Advantage Actor-Critic method (A2C). A2C is a Reinforcement Learning algorithm to predict the future based on two methods namely Value Based Method and Policy Based Method. Since we are using two Reinforcement Learning methods in A2C this is a hybrid method. The jobs of the two methods are as follows:

- an Actor that controls how our agent behaves (policy-based)

- a Critic that measures how good the action taken is (value-based)

Frontend

- React JS – Using Bootstrap for styling and JSX to render XML tags.

Backend

- Node JS – Using it for backend as it is opensource and platform independent.
- MySQL – Database to store user details.
- Tensorflow JS – To write the prediction algorithm.

Team Members

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Guide: