



Predict Stock Price movement using News and Sentiment Data

21.12.2019

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Overview

Stock prices are often impacted by the news about the organization, business environment or events revenue estimations set by organization for the next fiscal year or trade deal between countries, which has quite an impact on the sentiment of the trader. If we can build a predictive model which can predict the stock price movement based on news and sentiment data analysis, traders can place their bets based on the price movement predicted by the model

Goals

1. Build a predictive Machine Learning Model to predict stock price movement based on news and sentiment data.
2. To Build an API which can the predictive model to predict stock price change of a Stock in the next two hours.

Specifications

The purpose of this project is to build a predictive model, which can predict the stock price movement using intra day trading data and sentiment data provided by RavenPack. Data provided will be percentile change in stock recorded at 5-minute intervals throughout a trading day. The model we build should predict the change for the next 2 hours in percentage.

Data Source

Kaggle Competition "The Big Data Combine Engineered by BattleFin"

Approach

I. Model preparation

- Understand the data to find observations on how the stock price is impacted by the news and sentiment of the trader. Extract the features that has relevance on the stock price change.
- Present the observations using charts or graphs.
- Prepare training and testing data to avoid overfitting or underfitting of model.
- Use different ML regression models which can predict stock price with minimum loss value.

II. API building and serving

Prepare an API which can serve the Predict ML model and host the API on any cloud service.

Resources:

- Any cloud service which can provide 5 GB disk space of memory and CPU