

Stocks Prediction



Presented By:

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CS-460 Project

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Problem Statement:



- Don't you want to earn money with low efforts and great advantages
- Stock market is a good place to achieve this
- But, do we want risk? No, right.
- What are the steps that can give us stocks market predictions before taking ourself in risk zone
- On the basis of historical data trends, we guess future trend
- Reduces the risk factor and increases the confidence of the investor



Getting Started.....

- Yahoo Finance, Quandle and several other similar platforms provide data that is used in stock market predictions.
- We obtained data from these platforms for different stock exchange companies
- Apply ML algorithms and present stocks predictions results

Idea:

- Create a Support Vector Regression(SVR) model for small dataset, Split the dataset into training and testing data
- Train the model with training dataset and test the performance on testing data by using metrics like Mean Square Error(MSE), Mean Absolute Error(MAE)
- SVR uses the same principle as the SVMs.



Work Division:

- Best duo? Probably not.
- We will discuss everything and try to achieve the goal of this project.
- Ajay: Presentation-1,2, Creating slides, Coding, Creating report(Joint task)
- Prateek: Presentation-3, Summarizing the papers and anything related to theory

Midway Work:

- Try to understand the ML algorithm
- Using the trained model, forecasting the stocks and presenting it in a graph
- Comparing the result with other algorithms(e.g LSTM;if possible)



Expectation:

- A graphical representation of exponential moving average vs date
- Difficulties we might face: Model may not work for large data-sets, choosing a good kernel function, fine-tuning the hyperparameters
- So the final goal is to overcome some of these difficulties

References:

- *Ghania M.U, Awaisa M and Muzammul M, "Stock Market Prediction Using Machine Learning (ML) Algorithms", Department of Software Engineering, Government College University Faisalabad, Advances in Distributed Computing and Artificial Intelligence Journal, Regular Issue, Vol. 8 N. 4, 2019.*
- *Vanukuru K.S.R, "Stock Market Prediction Using Machine Learning", Vol. 05 Issue. 10, International Research Journal of Engineering and Technology (IRJET), Oct 2018.*
- *Henrique B.M, Sobreiro V.A and Kimura H, Stock Price Prediction Using Support Vector Regression on Daily and Up to the Minute Prices, The Journal of Finance and Data Science, vol. 4, no. 3, pp. 183-201, 2018.*

A still from the anime Naruto showing two characters. On the left is Naruto Uzumaki, with his signature orange spiky hair, blue headband with the Konoha symbol, and red spiral markings on his cheeks. He has a neutral expression. On the right is Shikamaru Akimichi, with his characteristic spiky black hair and a wide, toothy grin. He is wearing a green jacket and a blue Konoha arm guard on his left arm. The background is a simple indoor setting with wooden walls and a light fixture.

ARIGATO: GOZAIMAS
(THANK YOU)

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From: TEAM 10