

# Stock Market Prediction

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## Project description:

Our aim is to determine which stock will produce the greatest rate of return in the following week using machine learning algorithm.

We assume we have data of several stocks and its respective rate of returns for many weeks.

## Approaches:

We will look into approaches such as SVM , gradient descent. And their modifications. We will refer to the approaches used in the reference research papers mentioned here.

## Data sets:

We have dataset from:

[https://archive.ics.uci.edu/ml/machine-learning-databases/00312/dow\\_jones\\_index.zip](https://archive.ics.uci.edu/ml/machine-learning-databases/00312/dow_jones_index.zip)

- This dataset contains 750 records of various companies.
- Each record is data for a week has attributes such as opening , closing , low , high , percentage change in price , percentage change volume over last week & similar next week attributes and percentage rate of return .

The above dataset can be extended using yahoo finance api. This , we will use for the training ,validating and testing purposes.

## Research papers:

1. <http://cs229.stanford.edu/proj2013/DaiZhang-MachineLearningInStockPriceTrendForecasting.pdf>
2. [https://www.cs.princeton.edu/sites/default/files/uploads/saahil\\_madge.pdf](https://www.cs.princeton.edu/sites/default/files/uploads/saahil_madge.pdf)