# StockWatch

### PROJECT GOALS

Our goal through this project is to build unified model using known strategies and provide guidance about its investment. The system shall also display various measures and historical return of the given stock based on various buy and sell points predicted by the system.

## PROJECT REQUIREMENTS

System must have a user-friendly interface with login capabilities

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The system must be able to access current as well as historical data



The system must be able to output data in a graphical format



System must have a unified model for providing guidance about investment returns

#### COMPANY WATCH





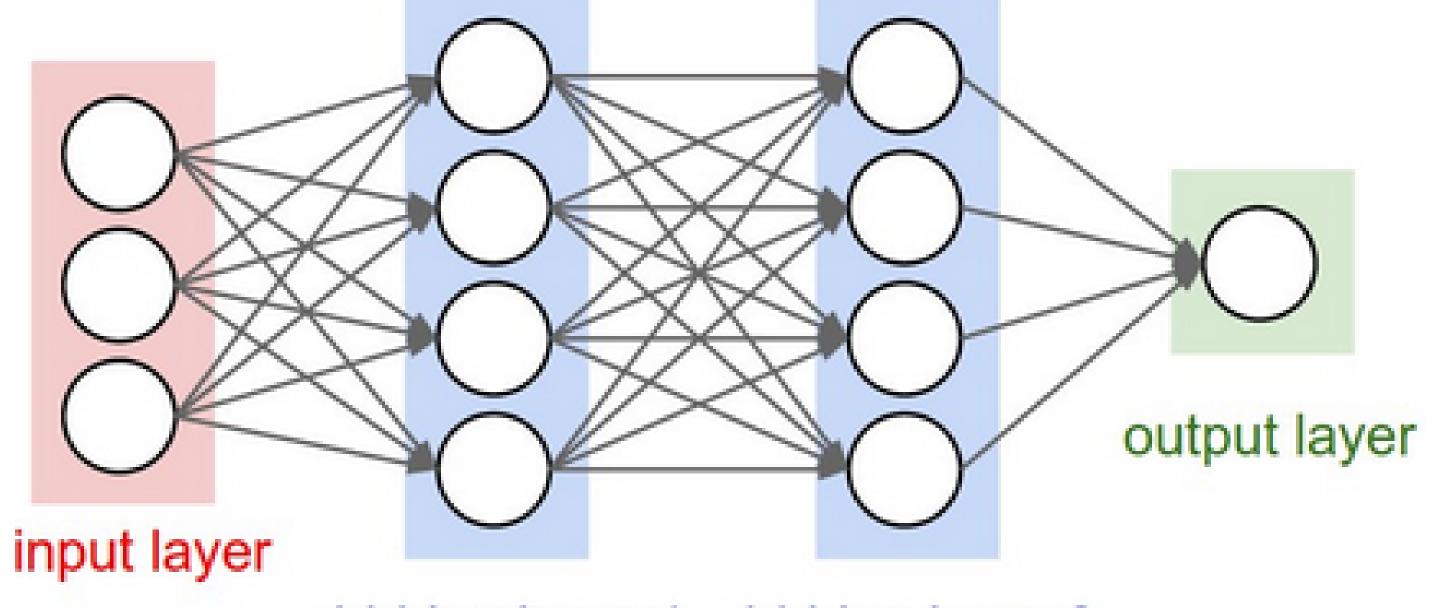












hidden layer 1 hidden layer 2

#### **TECHNOLOGY**

Database: SQLALchemy

Framework : Flask

Programming Language: Python

• Text editor: Sublime Text 3

Configuration Management: Github

Schedule Management: Trello

#### MACHINE LEARNING

- We shall use Keras to build a neural network model.
- We shall build an algorithm to convert data sets to a data set acceptable by the model
- The model shall receive training, testing, and validation data set from the data directory.
- The model shall calculate reward if made a correct/wrong decision of buying, selling, or no action on a stock.
- The model shall output a graph for reward/punishment function.
- The model shall output a graph for action taken by model (buy, sell, hold).