



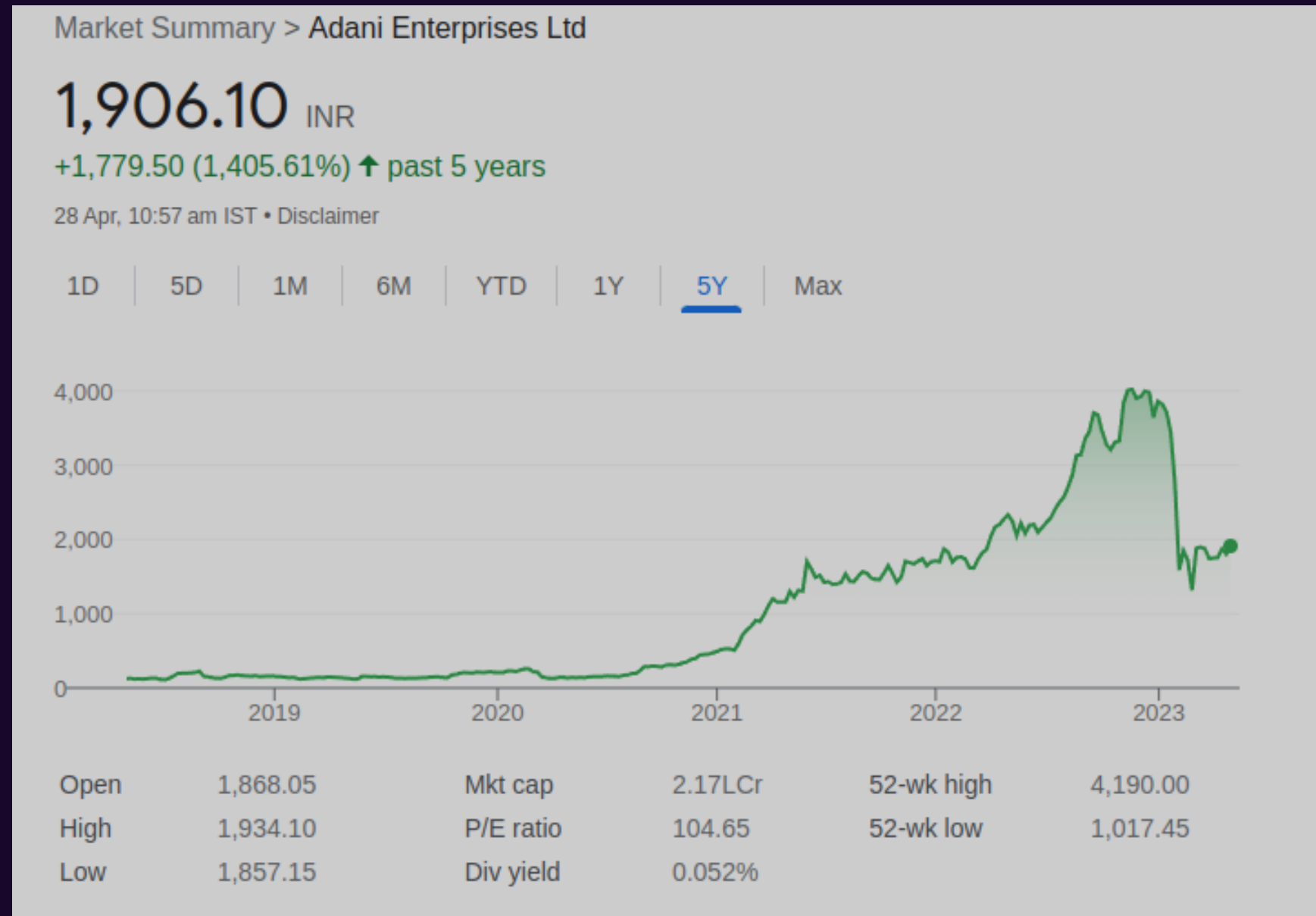
# STOCKSENSE

TEAM STOCKERS

# Stock Market



- Stock market is a platform where people buy and sell shares of companies
- Graphs show the performance of the stock market over time
- Upward trends indicate overall growth and downward trends indicate a decline
- Prices are influenced by various factors such as company performance, economic indicators, and investor sentiment
- Investing in the stock market involves risk, but can also yield returns over the long term.



# Market Research



- ❏ MARKET CAP OF INDIAN STOCK MARKET IS US \$ 3.27 TRILLION
- ❏ 11 CRORE DEMAT ACCOUNTS AS OF JAN 2023



The Indian stock market has one of the highest retail investor participation rates in the world, with individual investors accounting for more than 50% of the trading volume.



Only 8% of retail investors in India make a profit in the stock market, while 72% either break even or lose money.



Novice traders with insufficient knowledge and experience are prone to emotional and impulsive investment decisions, resulting in poor choices and potential losses in the stock market.





# Our Features



01

**Technical Prediction**

02

**Opinion Mining**

03

**Live Stock News**

04

**Live Stock Price**

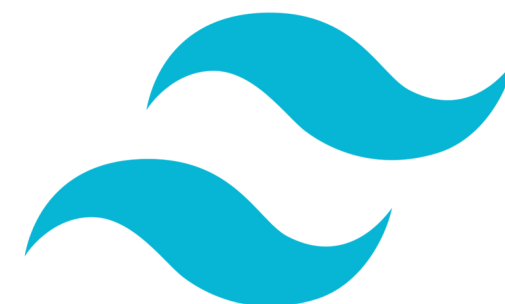
04

**Buy/Sell Suggestions**





# Tech Stacks Used



**HTML**



**CSS**



**JS**



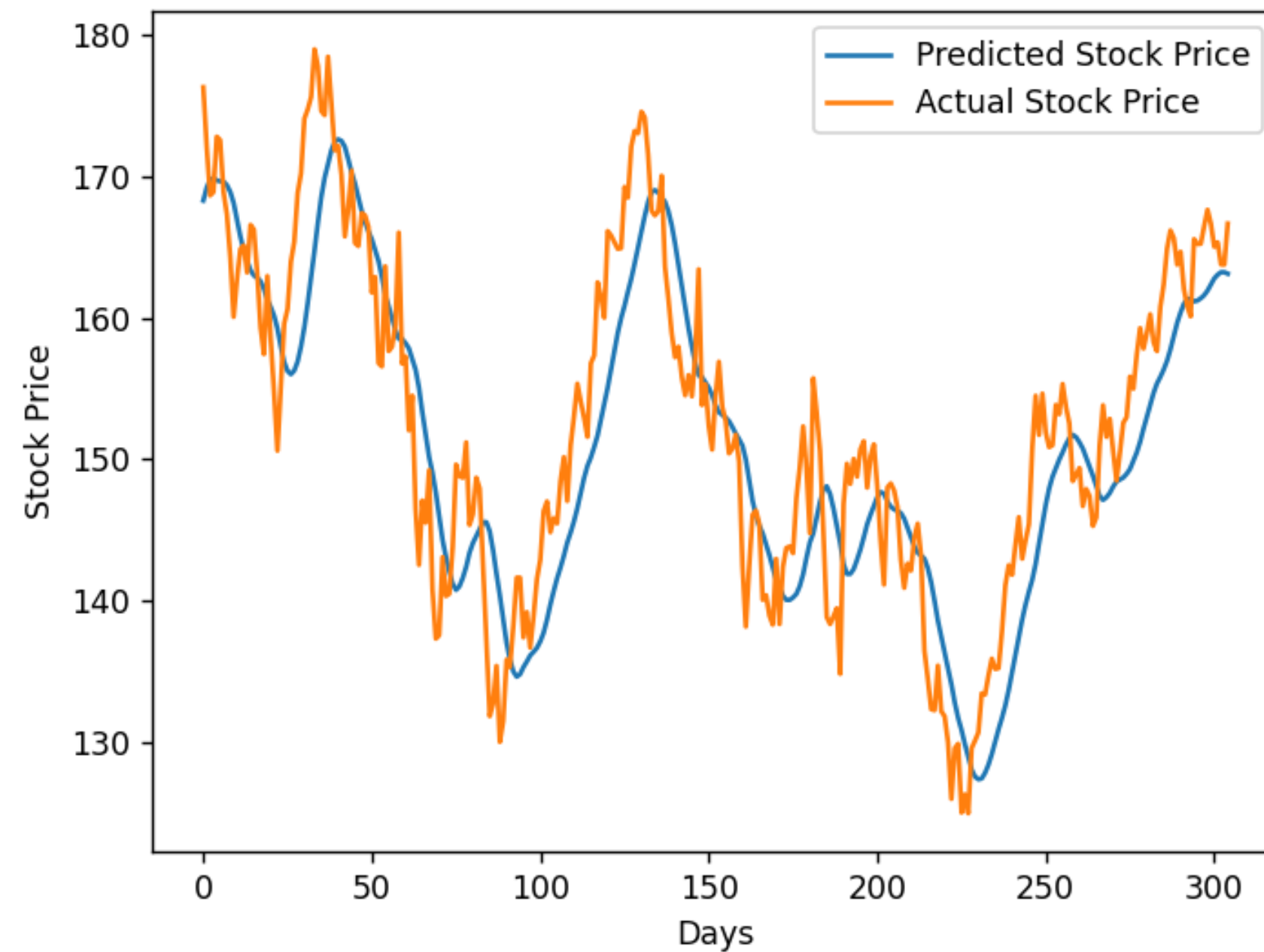


# Prototype



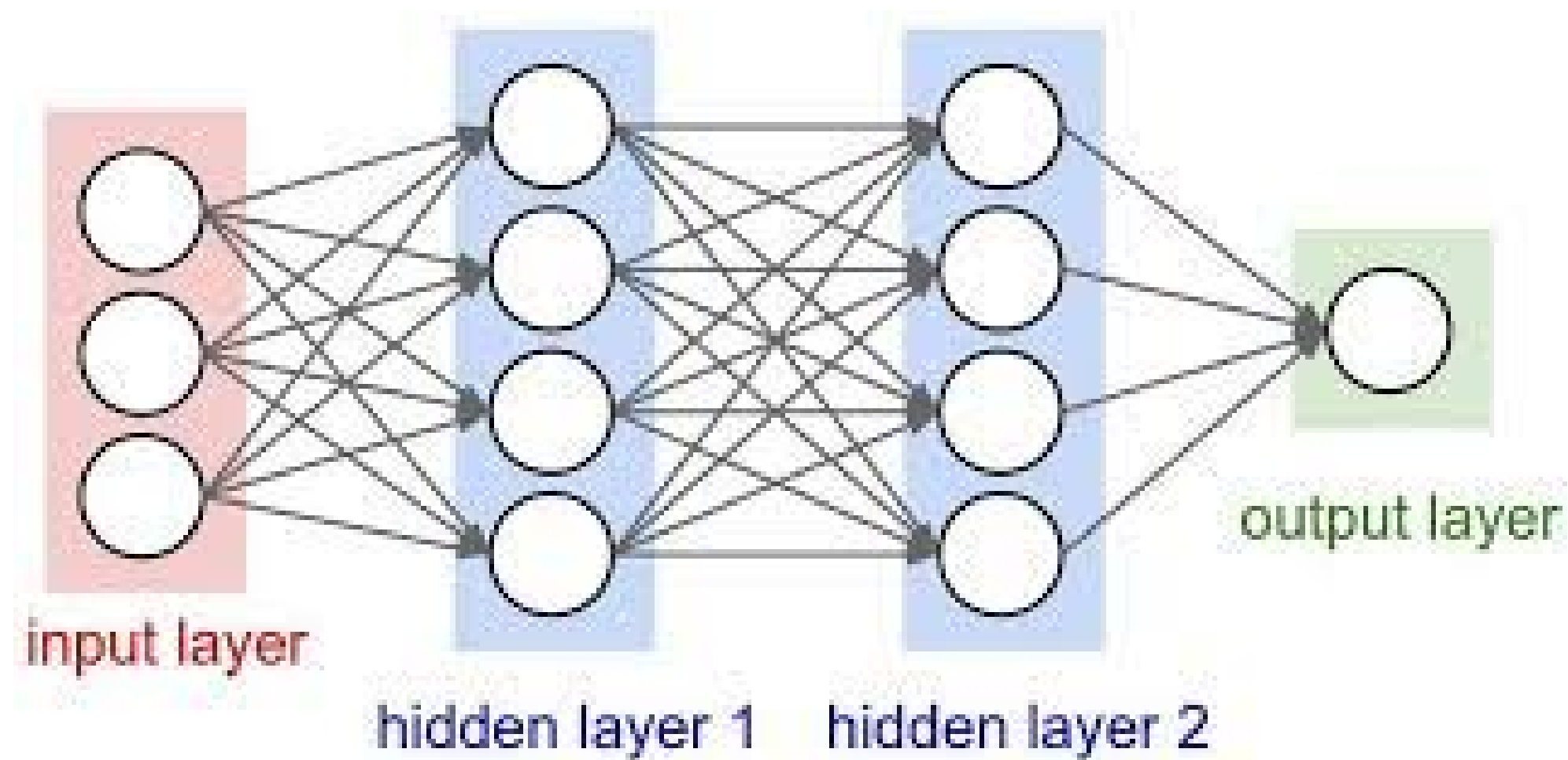
# Demonstration

# MACHINE LEARNING

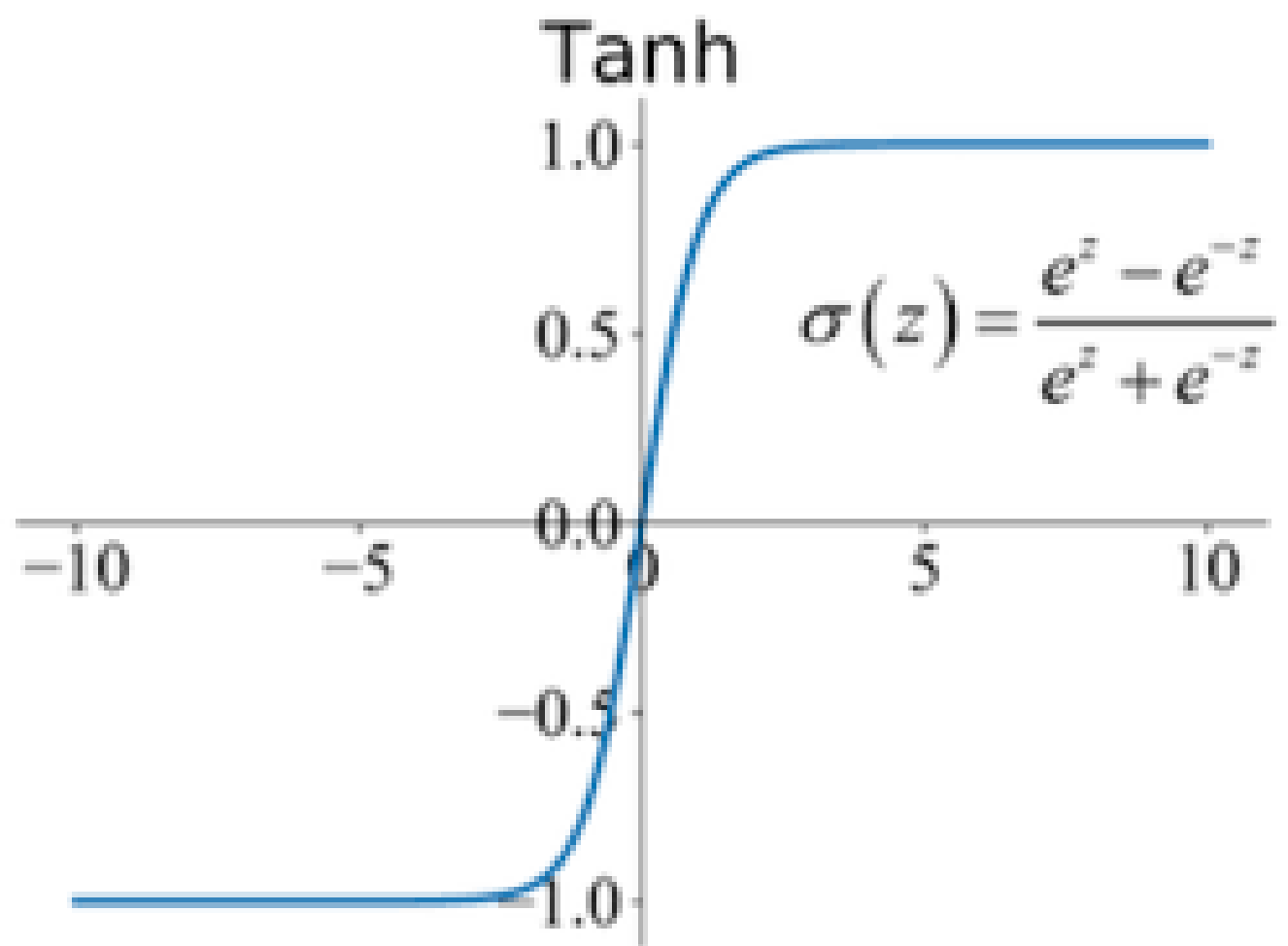
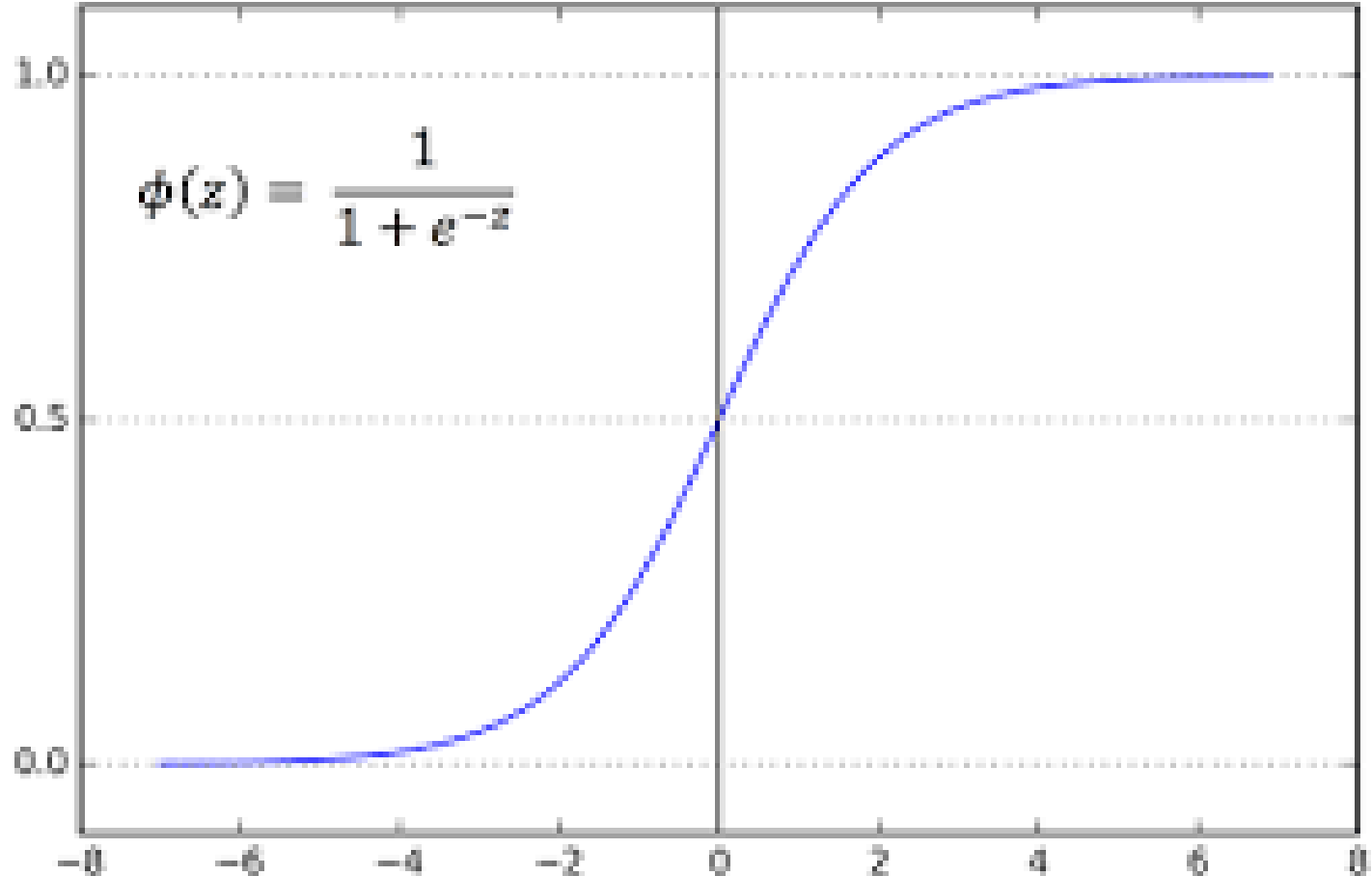
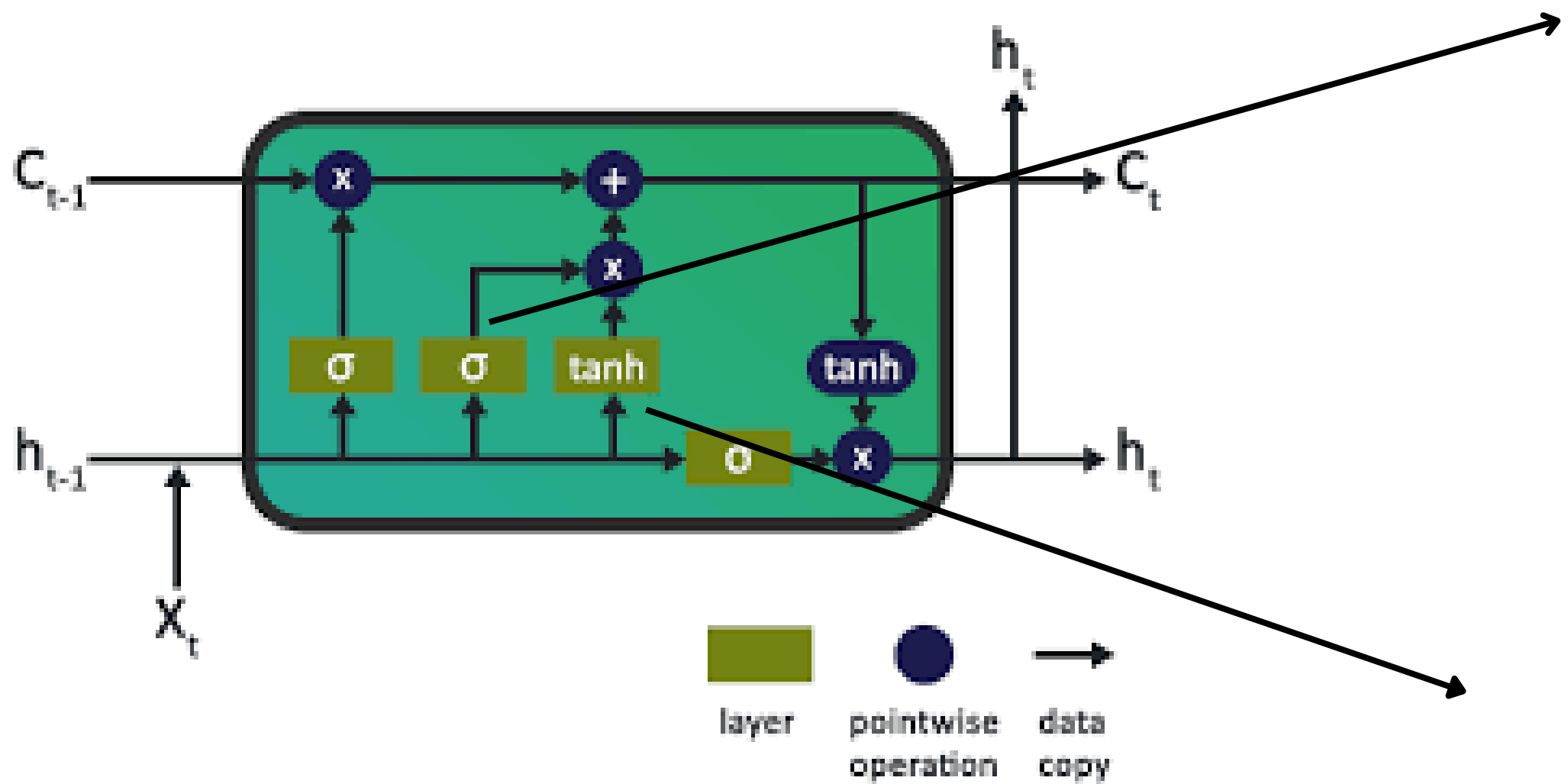




# THE NEURAL NETWORK



# THE LSTM MODEL



# PERFORMANCE PARAMETERS



The results of different model performance [\[12\]](#).

Model	Temporal length	Sensitivity (%)	Specificity	Precision	Accuracy (%)	RMSE (%)
LSTM	100	37	61.30%	35.50%	52.78	6.87
RNN	20	40.40	56.65%	39.08%	50.25	5.45

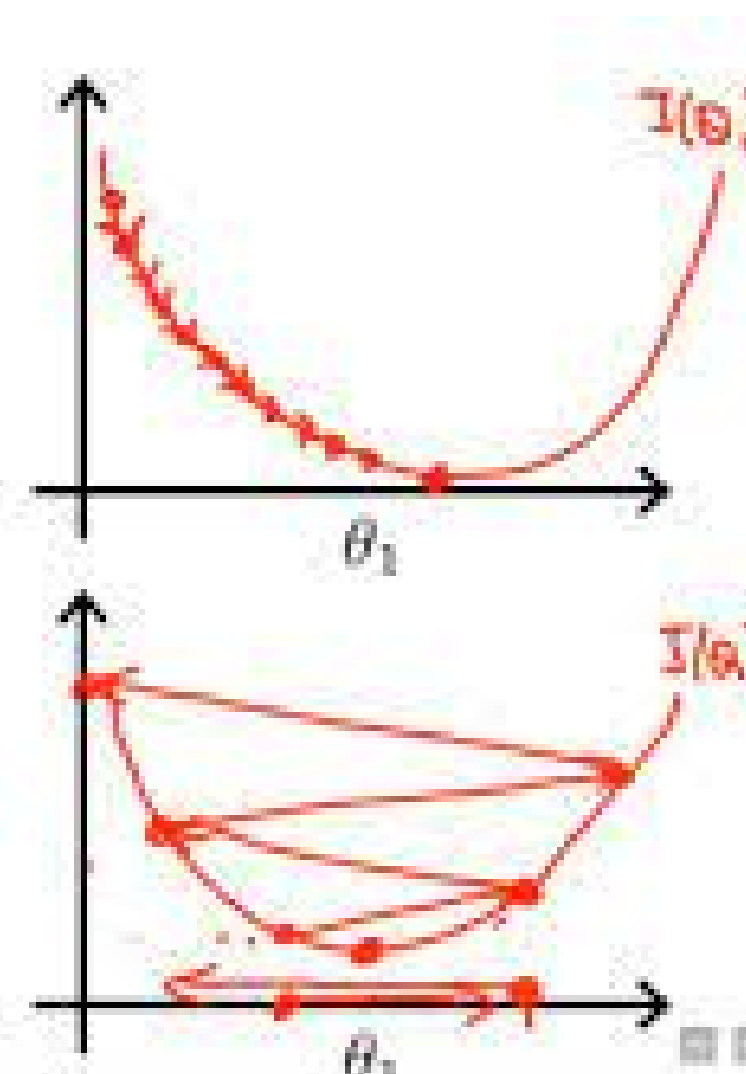
# OPTIMIZER: ADAM



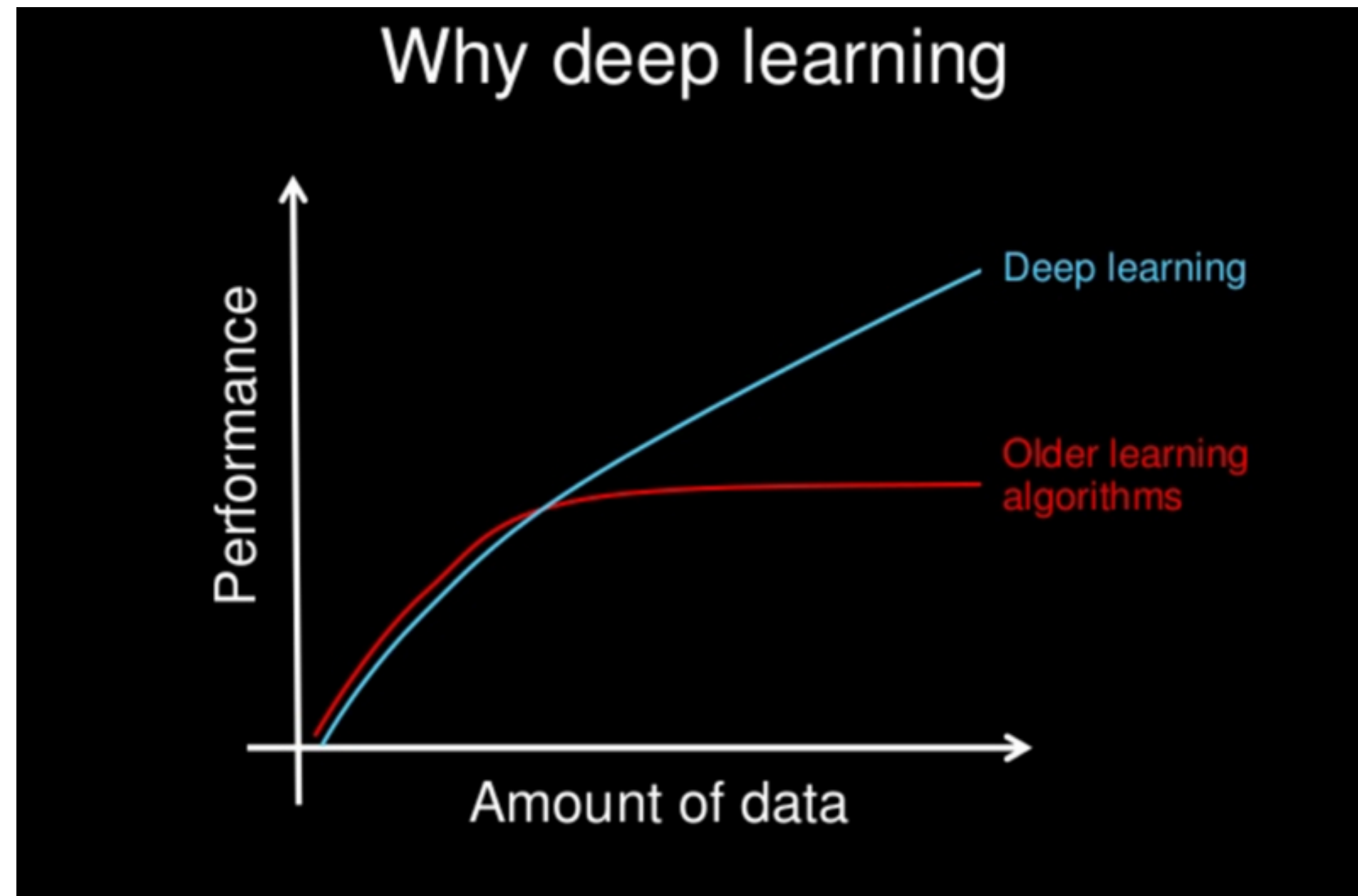
$$\theta_1 := \theta_1 - \alpha \frac{\partial}{\partial \theta_1} J(\theta_1)$$

If  $\alpha$  is too small, gradient descent can be slow.

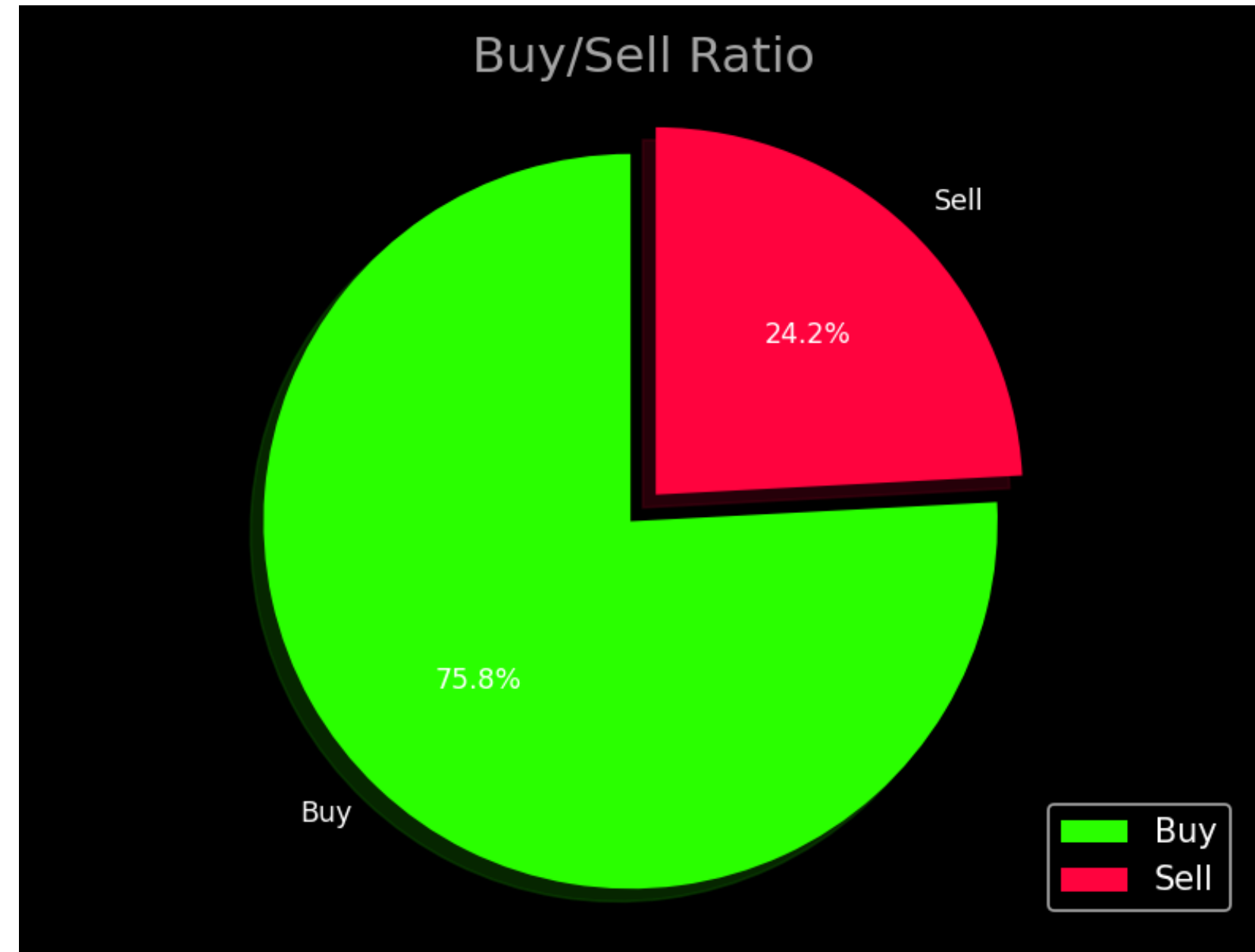
If  $\alpha$  is too large, gradient descent can overshoot the minimum. It may fail to converge, or even diverge.



# CHOICE



# BUY / SELL RATIO







# Challenges Faced

01

**Choose the algorithm for stock prediction**

02

**To decrease time taken by ml algorithm to do stock prediction**

03

**To render graph, piechart on webpage efficiently with more interactions.**

**THANK  
YOU**