ALGORITHMIC TRADING

CS971: EVOLUTIONARY COMPUTATION FOR FINANCE

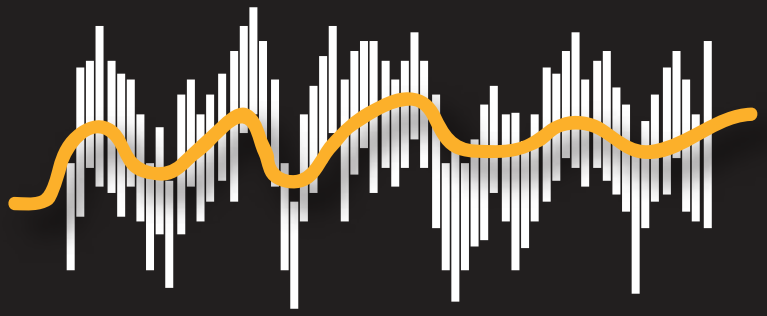
GARRY JAMES MCBRIDE

ALGORITHMIC TRADING

Algorithmic Trading is a method used when dealing with a larger order of data, which is too large to take on at one given time. Programming plays an important part in Algorithmic Trading as it involves different variables such as: Time, Price & Volume.

RSI

The Relative String Index (RSI) uses momentum to measure speed and change of price changes or movements within a stock. Between 0 and 100, it is overbought when above 70 and thus oversold when below 30, these levels can be adjusted to better fit the security of a stock in regards to the study of its trend.



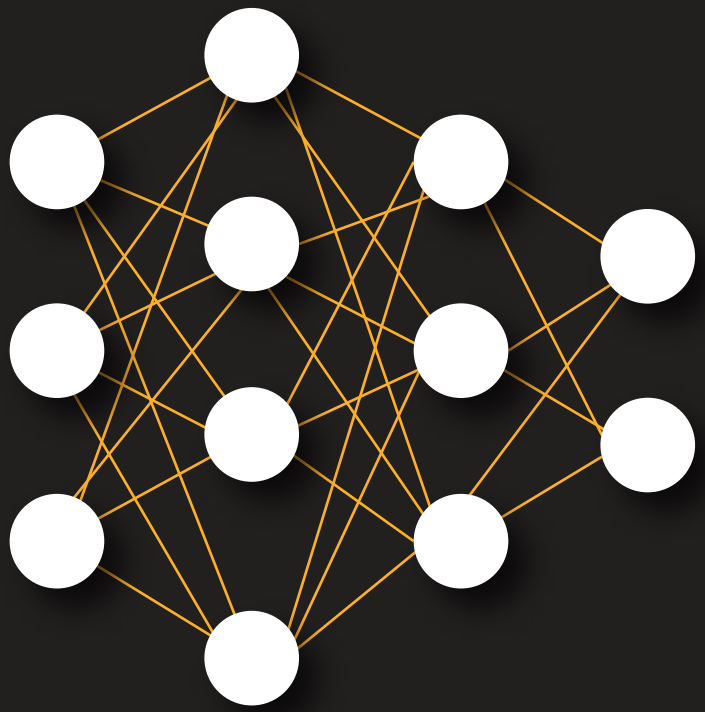
EMA

Exponential Moving Average (EMA) is a type of moving average (MA) which places a significant or greater weight on the vital most recent data points. Reacting more significantly to recent price changes (rather than older or less important) than a simple moving average (SMA).

NEURAL NETWORK

Neural networks are used for a vast amount of machine learning techniques such as; voice recognition or computer vision.

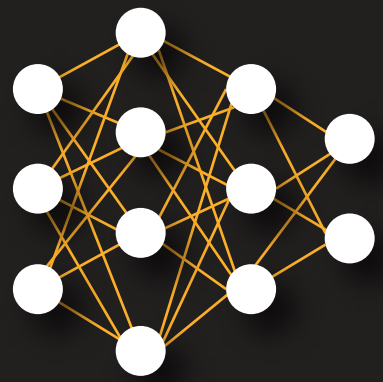
The Neural Network is fed information and passes it through layers to find its strongest matching value or asset.



amazon

DATA ANALYSIS

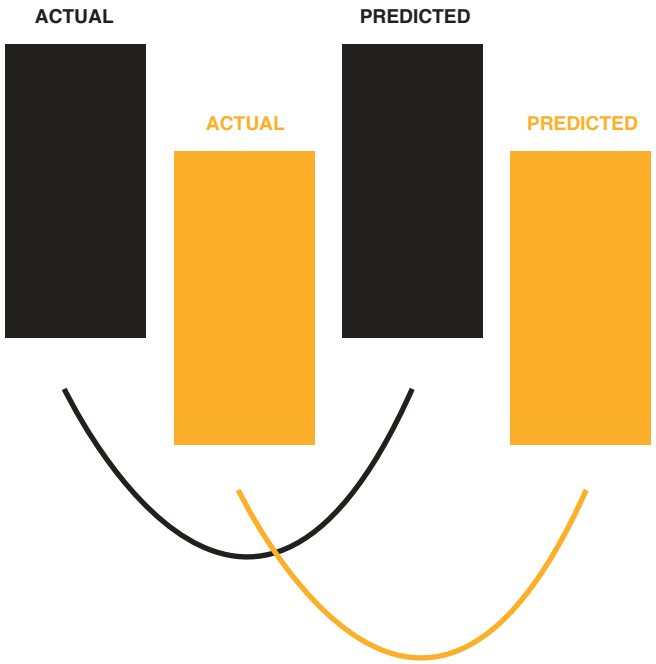
MATRIX



NEURAL NETWORK

SPLITTING DATA

PREDICITONS



NN Error - 0.8638901

RSI Error - 0.8885521

EMA Error - 0.2940354

Buy, Buy, Buy, Sell!, Buy, Buy, Buy, Sell!

Stocks left - 0

Profit - $235.0701

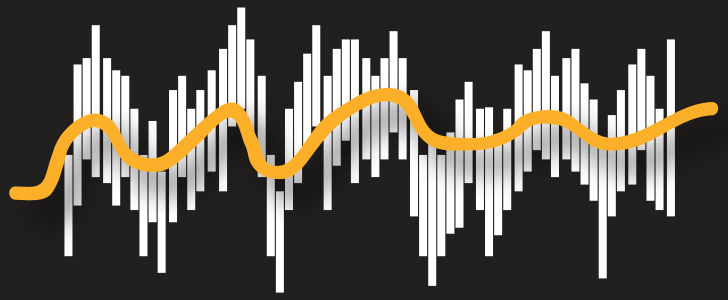
amazon

Buy, Buy, Buy, Sell!, Buy, Buy, Buy, Sell!

Stocks left - 0

Profit $179.8

amazon



+

THANK YOU!