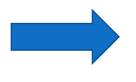
Human Brain VS Computer

Motivation







- Human mind Computer
- Good at image recognition, pattern recognition etc
- Good at arithmetic calculations



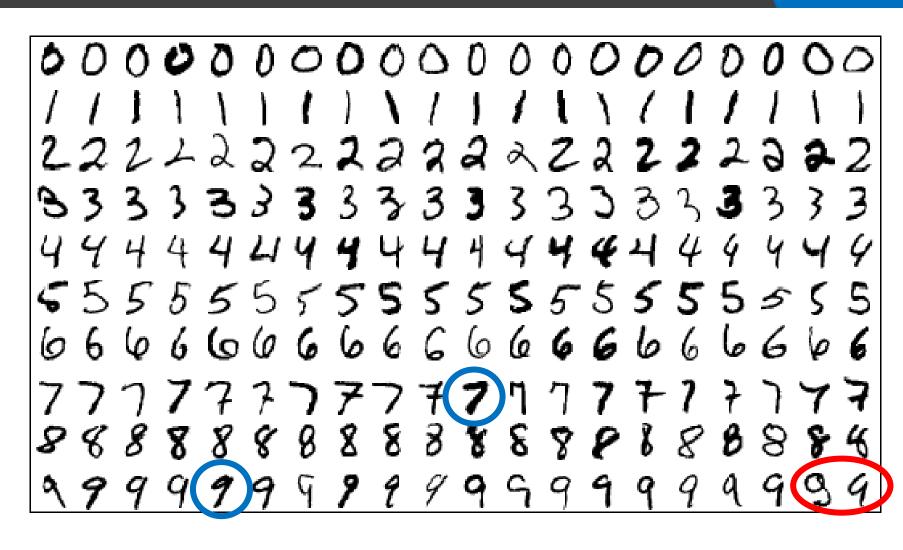


 $2574304 \times e^{354} \div \tan 5.1\pi$



Handwriting recognition

Making precise rules is difficult

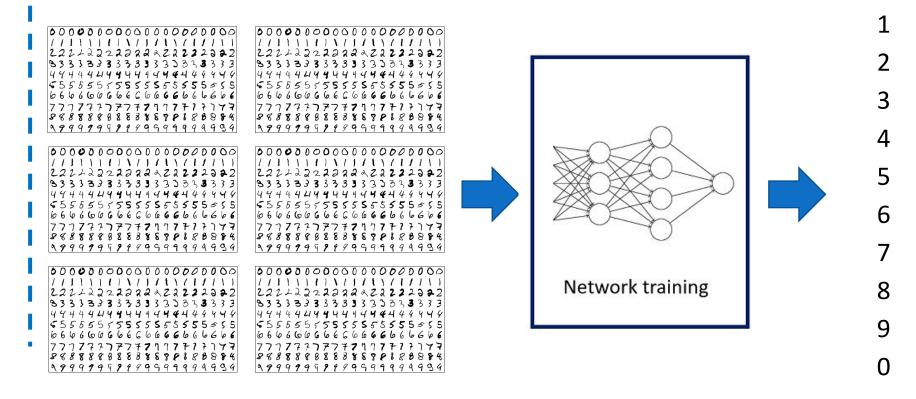




Neural Networks

Neural Networks creates own complex pattern recognition rules

Pattern recognition





Training data

Future Prediction

Dataset

Fashion MNIST

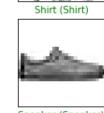
We will classify images into 10 fashion items



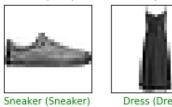


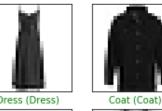
Pullover (Pullover)

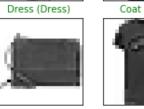
Sandal (Sandal)



Trouser (Trouser)



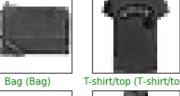


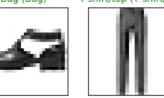


Sandal (Sandal)



Sneaker (Sneaker)





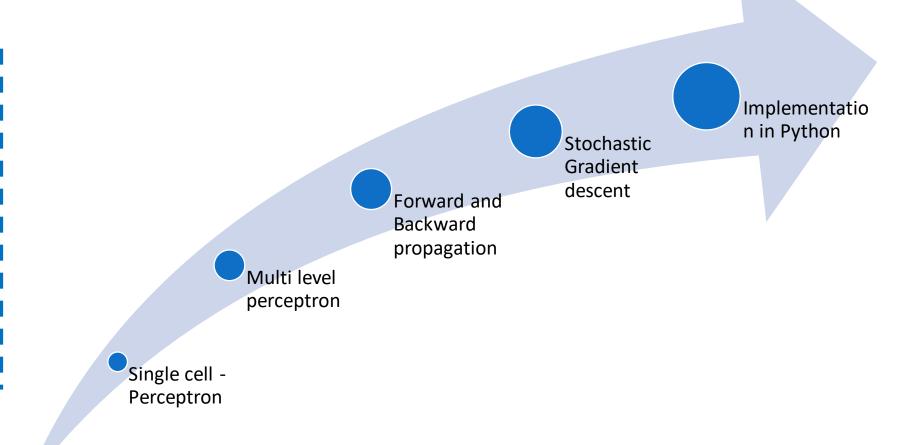






Course Flow

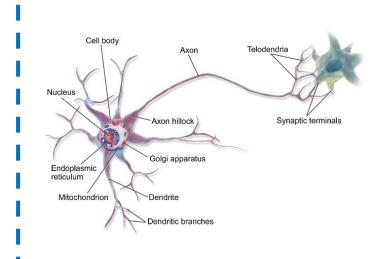




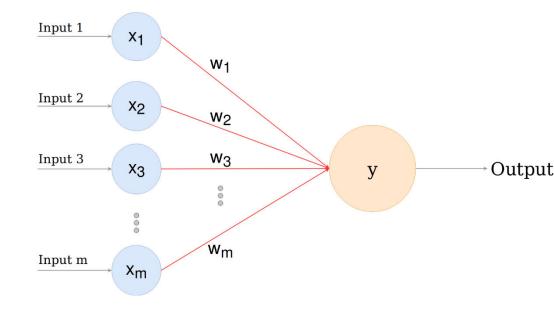


Perceptron

Artificial Neuron



Biological Neuron

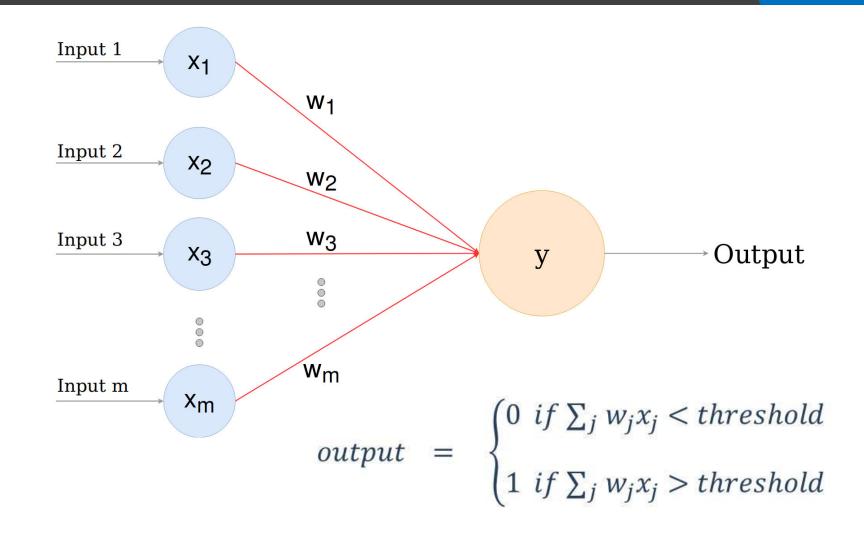


Artificial Neuron



Perceptron

Artificial Neuron





Purchasing a Shirt

Color

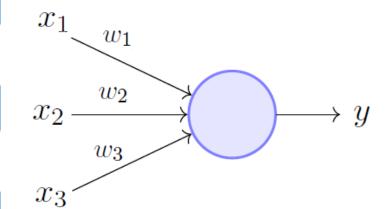
• Blue or Not

Sleeves

• Full or half

Fabric

• Cotton or not





Purchasing a Shirt

Color

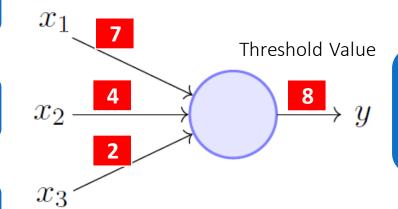
• Blue or Not

Sleeves

• Full or half

Fabric

• Cotton or not





Purchasing a Shirt

Color

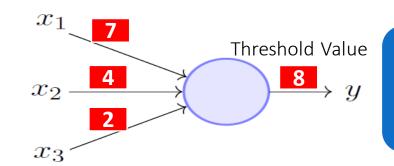
• Blue or Not

Sleeves

• Full or half

Fabric

• Cotton or not



Color	Sleeves	Fabric	Calculated Sum	Threshold	Buy / Not Buy
Blue	Half	Non Cotton	7*1 + 4*0 + 2*0 = 7	8	Not buy
Blue	Full	Non Cotton	11	8	Buy
Not Blue	Full	Cotton	6	8	Not Buy



Purchasing a Shirt

Color

• Blue or Not

Sleeves

• Full or half

Fabric

• Cotton or not

