Topic 02: Single Neuron
Neural Networks - From Brain to Business

How a Neuron Computes: Step-by-Step

STEP 1:
Inputs

STEP 2:
Weighted Sum + Bias

STEP 3:
Activation

STEP 4:
Output

Prediction: 100.0% confidence
Price will increase tomorrow

100

Yesterday
Price

$w_1 = 0.5$

85

Volume
Index

$w_2 = 0.3$

120

Sentiment
Score

$w_3 = 0.2$

b = 10

Bias

Σ

Weighted Sum

$z = 109.5$

Activation

$f(z) = \frac{1}{1+e^{-z}}$

1.000

Output
(Prediction)

100*0.5 + 85*0.3 + 120*0.2
= 50.0 + 25.5 + 24.0
= 99.5