

Perceptron Algorithm

Simplest Linear Classifier

Frank Rosenblatt

1957

Update Rule:

$$w \leftarrow w + \eta(y - \hat{y})x$$

Activation Function:

Step Function

(0 or 1)



Iteratively adjusts weights for misclassified points



Converges if data is linearly separable



Limitation: No convergence for non-separable data



Historical Significance: Foundation of neural networks