Select Logic Gate

AND

Learning Rate

0.10

Epochs

10

Logic Gates using Single Layer Perceptron

This interactive app demonstrates how a **Single Layer Perceptron** can learn the behavior of basic logic gates (AND, OR, AND-NOT), and why it **fails for XOR** due to non-linear separability.

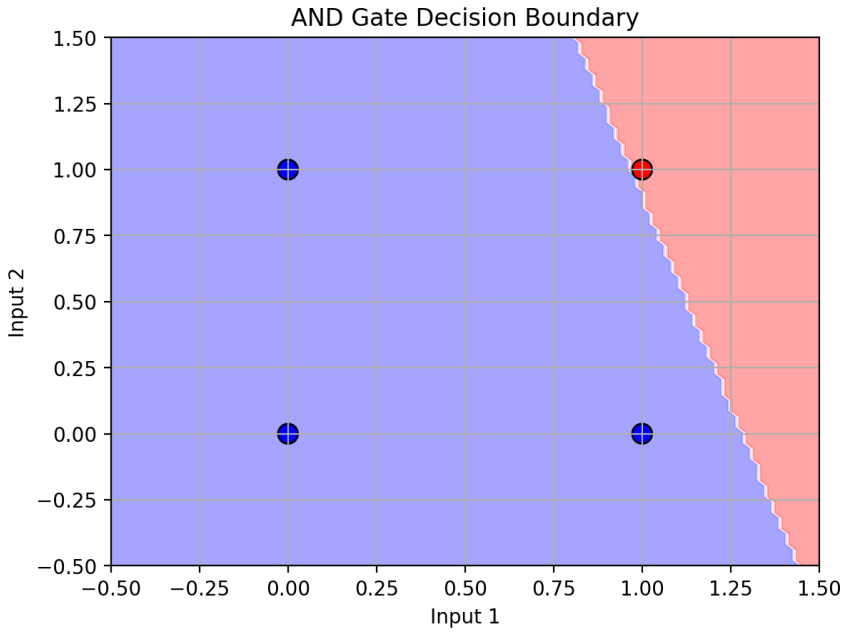
Selected Gate: AND

Trained Weights: [0.19671415 0.0617357]

Trained Bias: -0.2523114618993075

Truth Table & Perceptron Output

	Input 1	Input 2	Target Output	Perceptron Output
0	0	0	0	0
1	0	1	0	0
2	1	0	0	0
3	1	1	1	1



Developed for Neural Network Lab • Demonstration using **Streamlit** 🚀