

## Single Neuron Computation

1. Inputs:  $x_1 = 0.5, x_2 = 0.3$



2. Weights:  $w_1 = 2.0, w_2 = -1.0$



3. Weighted sum:  $(0.5 \times 2.0) + (0.3 \times -1.0) = 0.7$



4. Add bias:  $0.7 + 0.1 = 0.8$



5. Apply activation:  $\tanh(0.8) = 0.664$

**Output: 0.664**