

Deep Learning: Question

Given labelled data:

$$D = \{(1,3) \rightarrow 1, (3,1) \rightarrow 1, (3,5) \rightarrow 1, (5,3) \rightarrow 1, (3,3) \rightarrow 0\}$$

Consider a deep learning model with one hidden layer with two neurons. Define:

$$w_{1,1}^1 = w_{2,1}^1 = w_{1,1}^2 = 0.1$$

$$w_{1,2}^1 = w_{2,2}^1 = w_{1,2}^2 = 0.3$$

$$b_1^1 = b_2^1 = b_1^2 = 0.5$$

Compute a single iteration of backpropagation.