

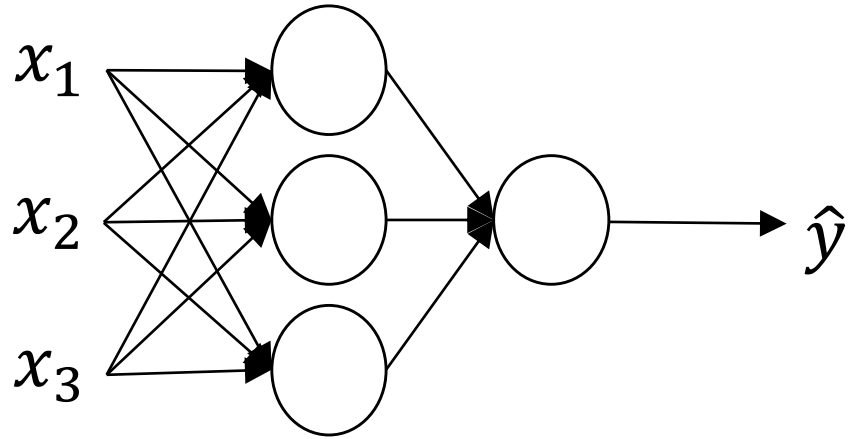


deeplearning.ai

One hidden layer Neural Network

Activation functions

Activation functions



Given x :

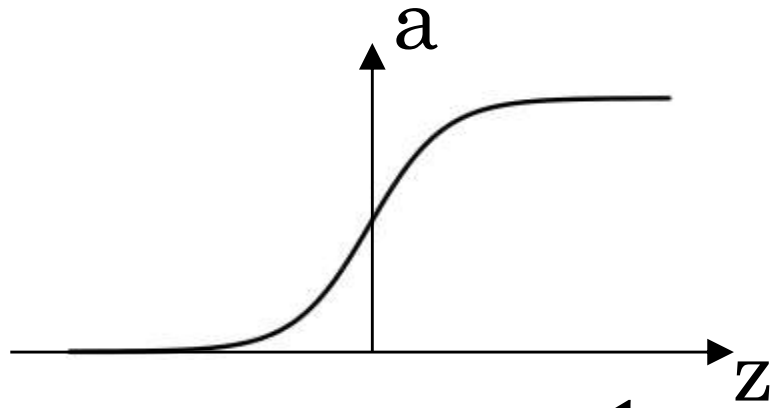
$$z^{[1]} = W^{[1]}x + b^{[1]}$$

$$a^{[1]} = \sigma(z^{[1]})$$

$$z^{[2]} = W^{[2]}a^{[1]} + b^{[2]}$$

$$a^{[2]} = \sigma(z^{[2]})$$

Pros and cons of activation functions



sigmoid: $a = \frac{1}{1 + e^{-z}}$

