



deeplearning.ai

# Deep Neural Networks

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## Parameters vs Hyperparameters

# What are hyperparameters?

Parameters:  $W^{[1]}, b^{[1]}, W^{[2]}, b^{[2]}, W^{[3]}, b^{[3]} \dots$

- learning rate  $\alpha$
- Hidden layers  $\rightarrow L$
- Hidden units  $\rightarrow n^{[1]}, n^{[2]} \dots$
- choice of Activation func  $\rightarrow \text{Relu}$   
 $\quad\quad\quad \vee \text{s tanh}$
- iterations in gradient descent
- momentum, minibatch size, regularization

# Applied deep learning is a very empirical process

