



deeplearning.ai

# Deep Neural Networks

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## Parameters vs Hyperparameters

# What are hyperparameters?

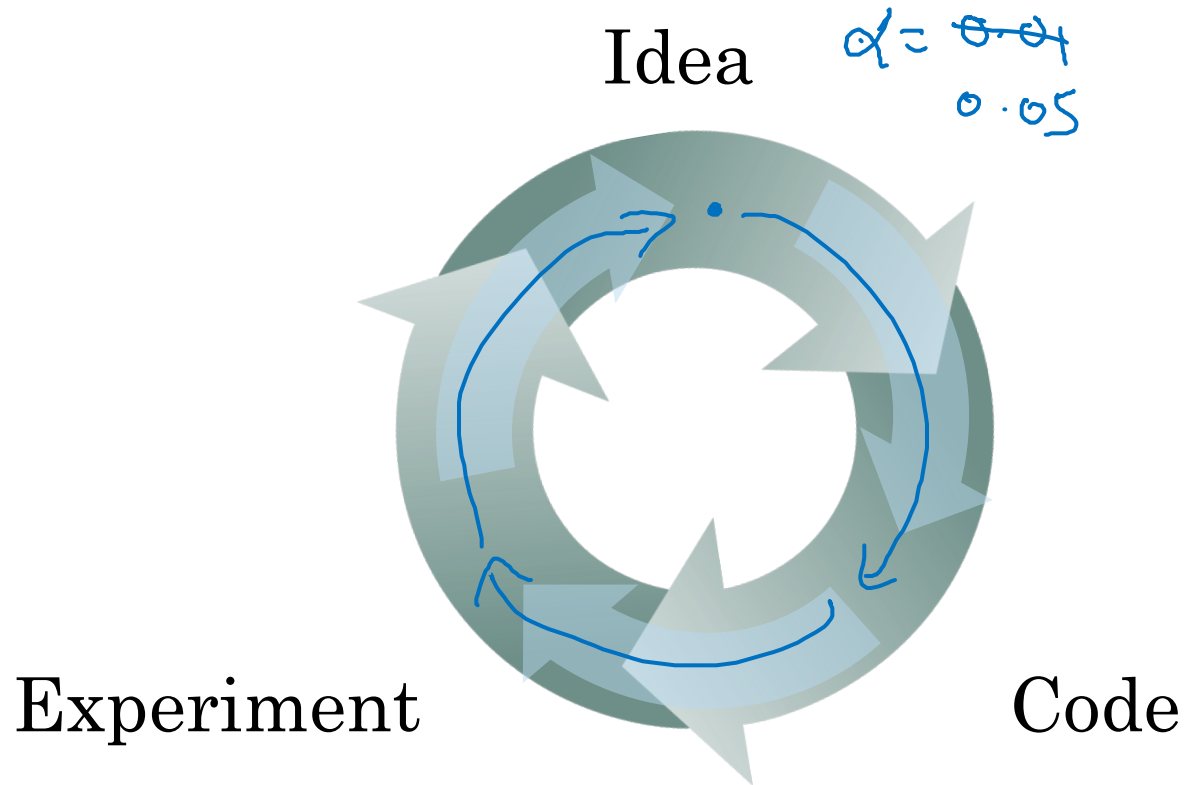
Parameters:  $W^{[1]}, b^{[1]}, W^{[2]}, b^{[2]}, W^{[3]}, b^{[3]} \dots$



Hyperparameters:  $\alpha$   
#iterations  
#hidden layers  $L$   
# hidden units  $n^{[1]}, n^{[2]}, \dots$   
choice of activation function

Later: Momentum, mini-batch size, regularizations, ...

# Applied deep learning is a very empirical process



Vision, Speech, NLP, Ad, Search, Recommendation.

