Deep Neural Networks

deeplearning.ai

Parameters vs Hyperparameters

What are hyperparameters?

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

Hyperparameters: Learning rate α

$\#$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

Idea

$\alpha = 0.04$

0.05

cost J

# of iterations

α

Experiment

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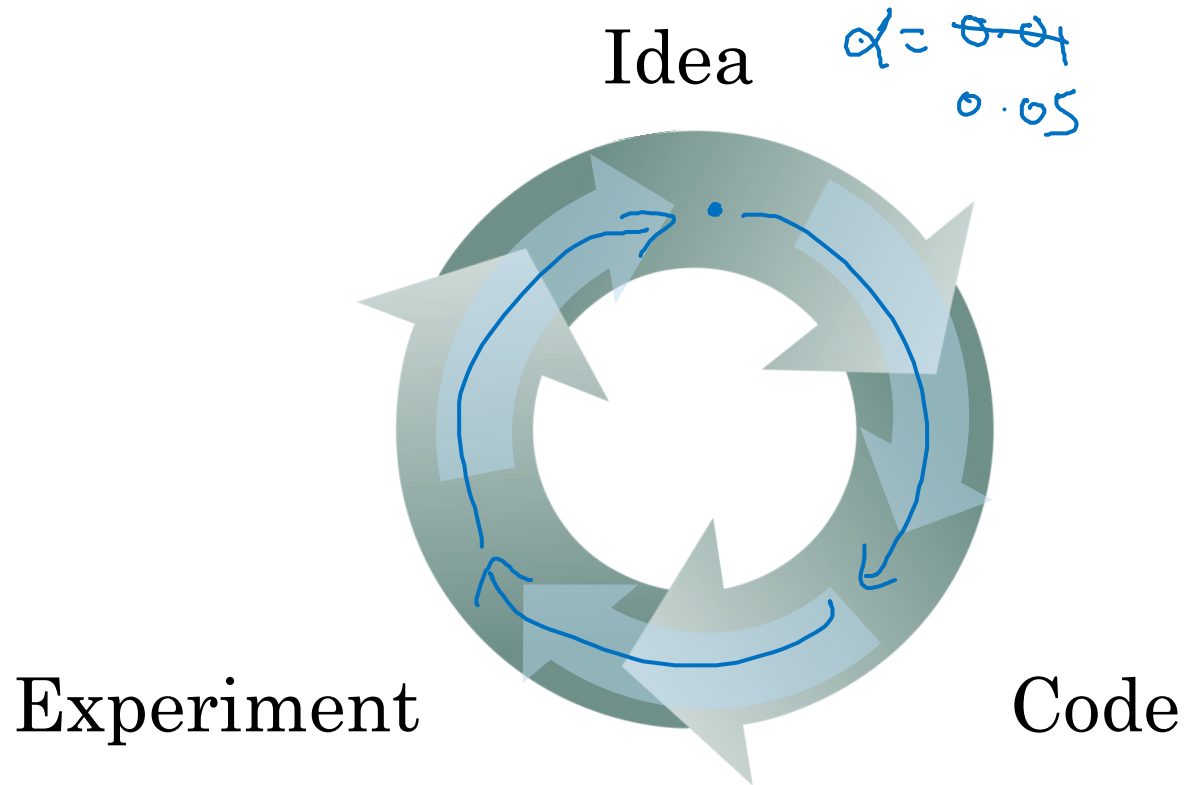
Vision, Speech, NLP, Ad, Search, Recommendation.