

(Week 4)

→ Deep 1-Layer NN

L → is num of layers

n^L → # of units (nodes) in layer

a^L → activations in layer L

$a^L = g^L(z^L)$, w^L → weights for z^L

→ Forward propagation in Deep Network

$$X: z^1 = w^1 x + b^1$$

$$a^1 = g^1(z^1)$$

$$z^2 = w^2 a^1 + b^2$$

$$a^2 = g^2(z^2)$$

w h o k a z a

→ getting your matrix dimensions right

• one of the ways to inc. your odds of having a bug free implementation is to think systematic and carefully about the matrix dimensions

→ Parameters VS hyperparameters

parameters: w, b / hyperparameters: learning rate

• num of iterations α

• num of hidden layers & units

• choice of activation fun

• also momentum, mini batch size
regularization