deeplearning.ai

Basics of Neural Network Programming

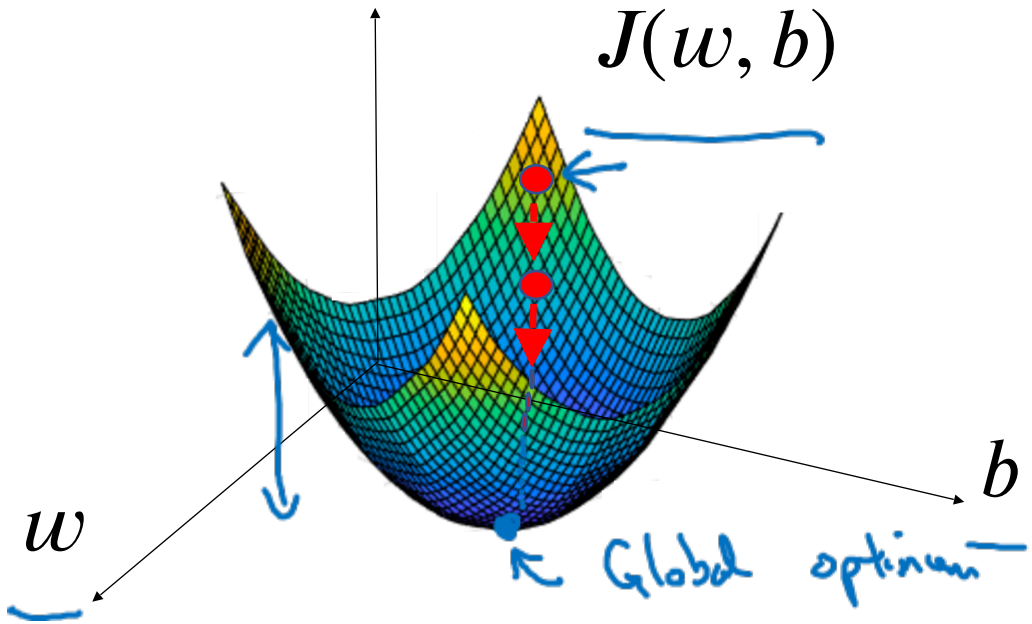
Gradient Descent

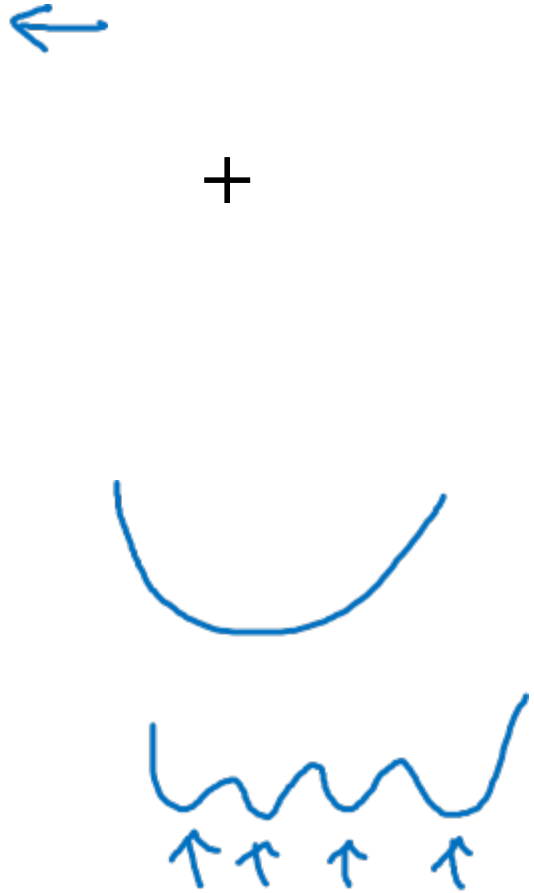
Gradient Descent

Recap: ,

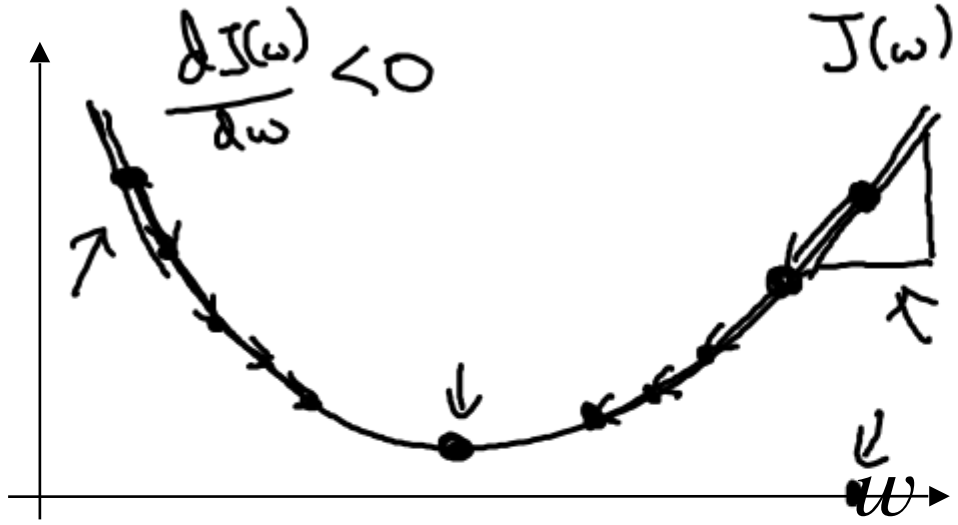
$$J(w,b) = \frac{1}{m}\sum_{i=1}^{m} \square\square - \frac{1}{m}\sum_{i=1}^{m}$$

Want to find that minimize





Gradient Descent



Repeat {

$w := w - \alpha \frac{dJ(w)}{dw}$ ← learning rate

"dw"

}

$w := w - \alpha dw$

$\frac{dJ(w)}{dw} = ?$

$J(w,b)$

$w := w - \alpha \frac{\partial J(w,b)}{\partial w}$ → dw

$b := b - \alpha \frac{\partial J(w,b)}{\partial b}$ → db

"partial derivation"

∂ ← J

Andrew Ng