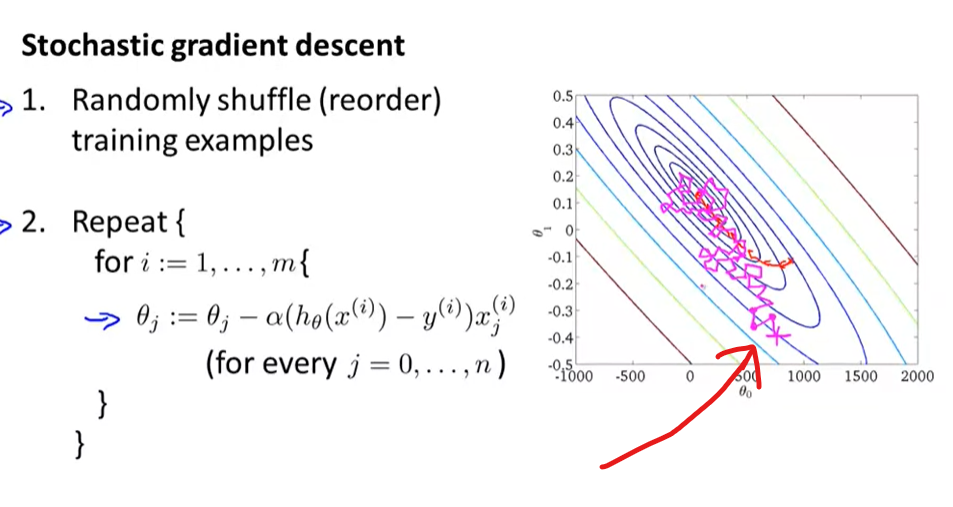
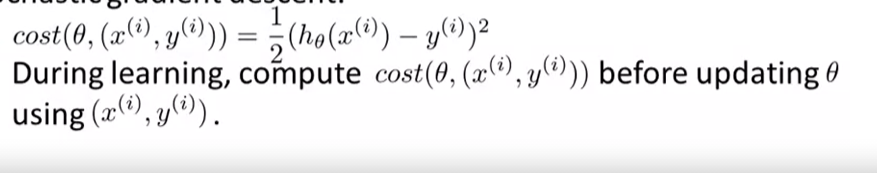
**Week 10**

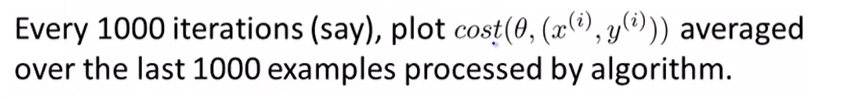
**Large datasets:**

-Stochastic Gradient Descent



Convergence of SGD check



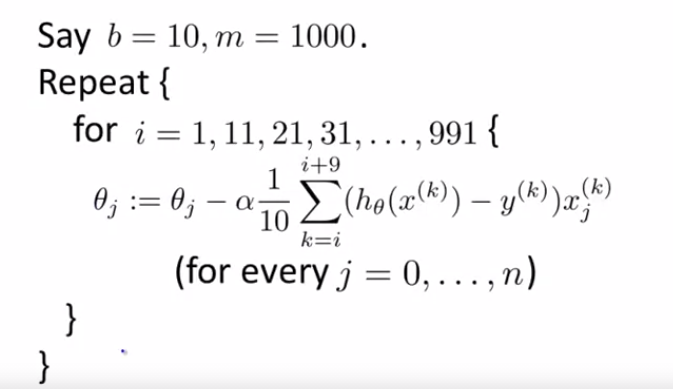


(or 5000 iterations)

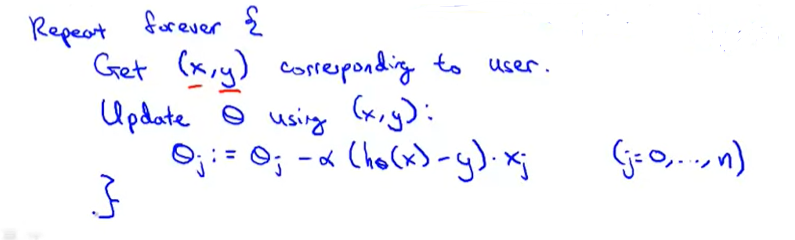
Plot to check

Slowly decrease learning reate alpha.

-Mini-batch Gradient Descent

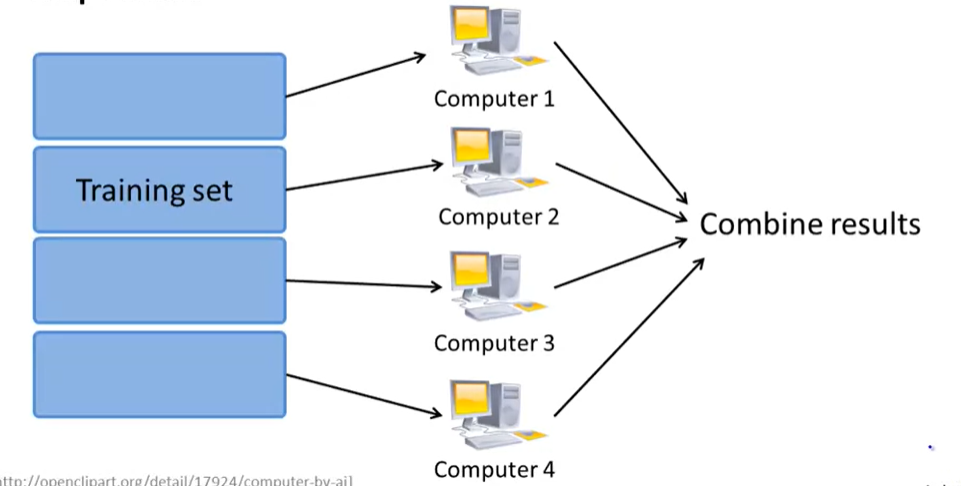


**Online Learning**

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Get data online from user. Feed to algorithm then throw away. Don’t save data.

**Map Reduce**

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We can split training set. Use multi computer or multi core to train.