

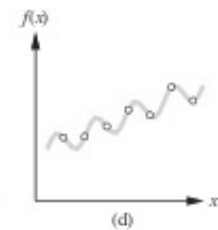
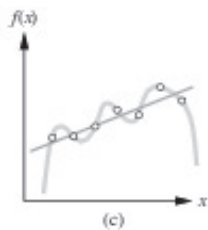
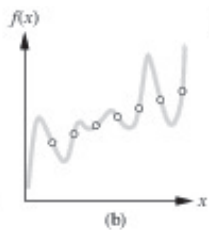
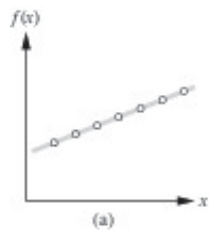
CS 4100/5100: Foundations of AI ML

Instructor: Rob Platt
r.platt@neu.edu

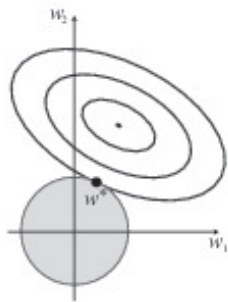
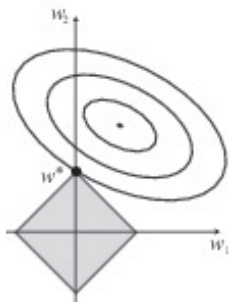
College of Computer and information Science
Northeastern University

September 5, 2013

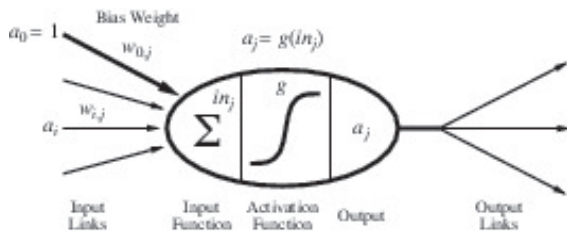
Overfitting?



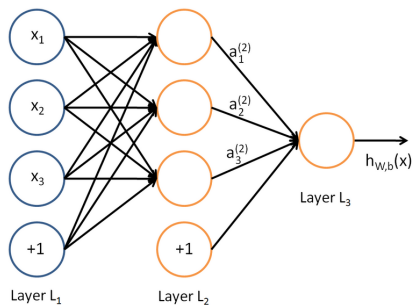
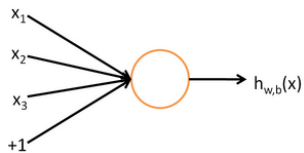
Regularization



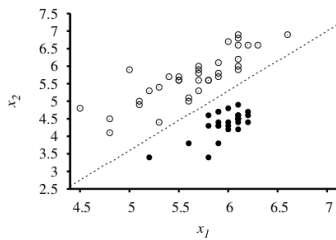
Neuron



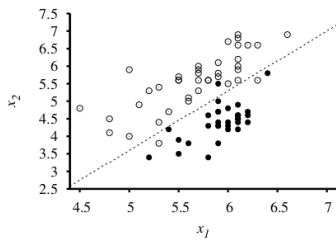
Neuron



Logistic Regression

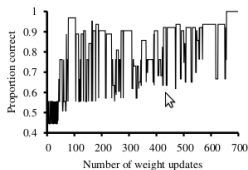


(a)

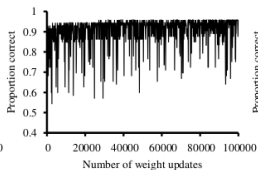


(b)

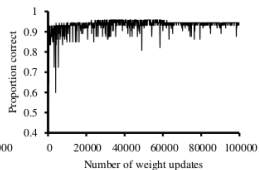
Logistic Regression



(a)

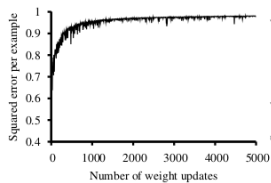


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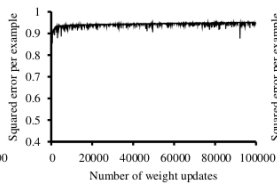


(c)

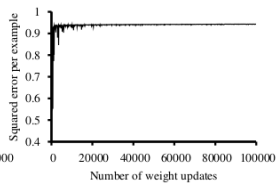
Logistic Regression



(a)

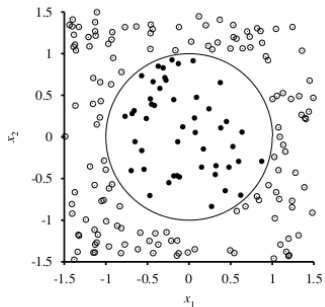


(b)

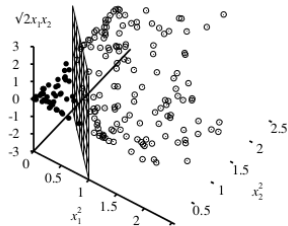


(c)

Support Vector Machine (kernel)

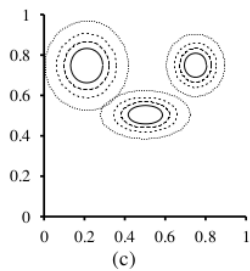
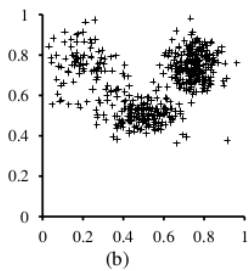
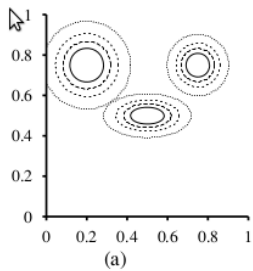


(a)

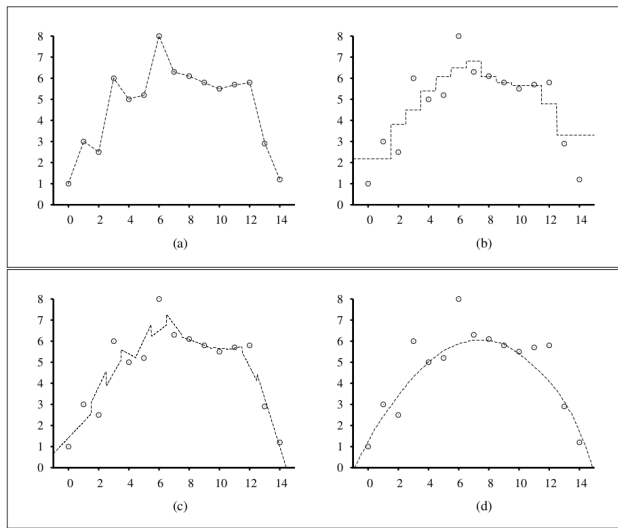


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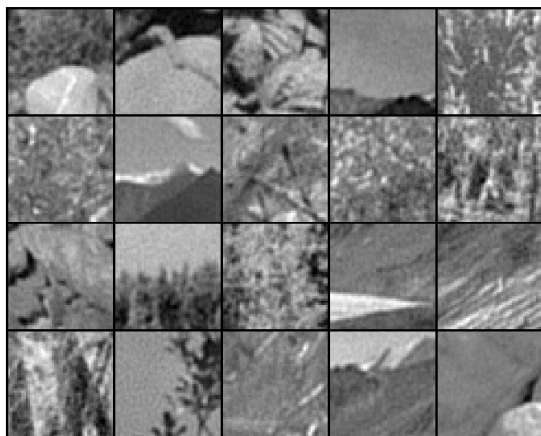
Clustering



Nearest Neighbor for Regression



PCA



compressed images: 638 out of 2304 dimensions