Assignment A8: Artificial Neural Networks

CS 4300
Fall 2015

Assigned: 1 December 2015

Due: Part 1: 10 December 2015

For this problem, handin a lab report pdf (include name, date, assignment and class number in pdf) which examines perceptron and regression learning.

In Part 1 you are to use the data in the class data directory to run the appropriate algorithms as described in the text to reproduce the plots shown in Figures 18.16 and 18.18. Data is in file Part1_data.mat includes: data_lin, indexes_lin_nuke, and indexes_lin_quake. Include a statistical analysis of the mean, variance and Confidence intervals for the number of iterations required to converge for these two methods.

In addition, the results need to be presented in a strong statistical framework; this means computing statistics (e.g., mean, variance) over several trials (how many?), and showing confidence intervals.

You should handin the report pdf as well as the Matlab source code used in the study. The code should conform to the style requested in the class materials. In addition, please turn in a hardcopy of the Part 1 report in class before the start of class on December 10, 2015.

Write a lab report in the format (please do not deviate from this format!) described in the course materials.