

Vision
HW#1

1. For the data given in the text files (100 3---dimensional data points in xdata.txt and 100 corresponding observed values in ydata.txt, available on the class homepage), write a small piece of code to calculate the corresponding coefficients in ordinary linear regression method. Use polynomial regression of orders up to 3. Give the values of the coefficients. You do not need to submit the code.
2. Use the first 50 data points of problem 1 for training a polynomial regression of order up to 3. Use the next 50 for test. Report the error values.
3. Use only the first 10 data points of problem 1. Since you might have an over-fitting situation use regularized regression to find your coefficients. Use the rest of the data as test data and report your error.
4. Bishop 1.14
5. Bishop 1.24
6. Bishop 1.30