Machine Leaning HW2 – Report

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For the assignment I used a couple different websites and a youtube tutorial which a classmate pointed me towards to help me get an idea of what I needed to do in my code.These websites and videos were as follows:

- https://scikit-learn.org/stable/modules/generated/sklearn.linear_model.LinearRegression.html
- https://towardsdatascience.com/train-test-split-and-cross-validation-in-python-80b61beca4b6
- https://www.youtube.com/watch?v=-BQCB6Uch1g

Within my code, I made an attempt to take the txt files given to use and convert them to csv files within the code, but I was unsuccessful in this. I have left that code in my code file so it can seen if so required, it is just commented out so as not to affect the working code. Thus, I resorted to creating the csv files before hand and reading them in that way. As a result I added these files to the submission.

I wrote my code in such a way that it is separated into segments using the #In[]: command in python to help in dubugging my code and also to allow me greater control when running the code.

I decided on the particular architecture through cross-validation. I achieved this cross validation through following the tutorial I discovered on the website at the second bullet point from above.

See the Graph achieved below:

The code in #In[9]: was used to achieve this