**Comments for sales\_prediction.py**

You have explored various possibilities and used feature engineering like PCA. You can also additionally explore the following

1. Find the correlation of the dependent variable on all independent variables and eliminate unwanted features
2. You can group features to exploit the interaction behaviour between features
3. You can also try other regression models involving higher degree polynomials

**Comments for Stock\_predict.py**

You have tried all possible algorithms and feature engineering algorithms and identified the best possible fit for this data. You could also use all the features instead of limiting your algorithm to open, close, high and low. This could give you more opportunities when you look at volume, PE ratio and features available in the dataset. Given that you have also attempted lasso regression. Lasso will easily eliminate the features that are not relevant.

C**omments for dogs vs cat**

Given that you have modified the given code and changed the hyper parameters so that the number of convolution layer has been reduced and dense layer has been added. Was there a specific reason why you choose to do this. In order to narrow down on the right set of parameters you want you use packages like hyperopt which we will discuss tomorrow

**Comments for Email**

You have attempted to use tfidf vectorizer and applied multinomial naïve base algorithm. Historically it si proven that is outperformed by the various rnn variants like bidirectional LSTM, LSTM and GRUs. If you are concerned with the computational cost you nay also try conv1D neural networks. If you are satisfied with the accuracies from this model you can test with different test sets and prediction datasets **.** you may want consider pre trained models like mobile net or vgg net

**Comments for Spam vs Ham**

You have used LSTM model to train this on sms dataset. You may want consider using bidrectional LSTMs which generally gives better performance. You could also consider pre trained models like bert which will reduced the cost of training