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PES71

ECE1390

Problem Set 7

1a) Length of HoG vector is 1188,

1b) Shape of X_train =(100, 1188)
Shape of y_train =(100,)

1c) My machine is not particularly robust. I didn't use a threshold for my predictions. The highest score I received was from a misclassification. I was able to correctly identify all the cars in the test images. It also misclassified a car in an image that doesn't have a car. The best thing I could do to enhance my outcome would be to have a lot more training samples.

2a) Epoch 10/10
150/150 [=====] - 4s 29ms/step - loss: 0.0755 - accuracy: 0.9707

I got an accuracy of 97% on the training data.

2b) Accuracy on testing data: 0.9486666917800903%
Error on testing data: 0.05133330821990967% I think that there are a few things that I could do to get better results. I could retrain the model numerous times and keep the one that performs the best on the testing data. I could also play with the number of filters and hidden units to try to find a more accurate model.