**CSE 523 Machine Learning Winter 2022**

Progress Report :

**Vehicle Detection using HOG-SVM**

Group Name :

**FOUR**

**Date: 23th March, 2022**

Group Members -

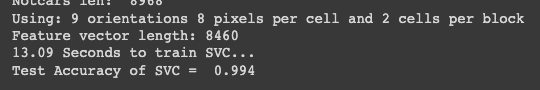
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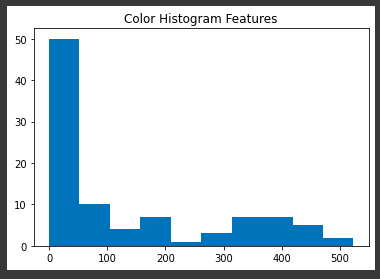
**1) Tasks Performed in the week**

* Fine Tuning hyperparameters for HOG+SVM for higher accuracy
* Coding HOG + LinearSVC Classifier
* Better Accuracy in HOG feature extraction and LinearSVC

**2) Outcomes of the tasks performed**

* Choosing a color space for seeing impact on overall accuracy.



* Defined a function to convert the images into “YCrCb” color space if other than “RGB”. We also fed another feature into the classifier is the distribution of colors inside the image.
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**3) Tasks to be performed in the upcoming week**

* Plotting hyperplane in SVM
* Initial Implementation of Lane Departure