

# Data Science project

## Short explanation about every notebook:

### Classification notebook:

I improved my result from the last semester by 1.3% using an ensemble learning , using voting with the follow classifiers: RandomForest , knn, Logisticregression, DecisionTree, Voting classifier.

### FMNIST notebook:

We tried to predict which clothing item is in the picture, using Stacking, RandomForest , DecisionTree and xgboost, I was able to predict 88.75% after using PCA.

### Cats vs Dogs Notebook:

We tried to predict what is on the picture, dog or cat. Using Stacking, RandomForest , knn, xgboost, DecisionTree, adaBoost , I was able to predict 64.94% after using PCA.

### Hands Notebook:

We tried to predict which label the hands were moving, I was able on the validation to predict after PCA by using Voting , xgboost, RandomForest, Logisticregression 87.5%.

**Note :** I tried to showed also the use of Kmeans and RandomSearch/Grid search in some of the noteBooks but it didn't help me I got better results by using without them.