**HW1**

**ML - HomeWork1**

**50209**

My approach to predict genders from given data set:

-In this project we are given a data of 40 different people who have their face images given to us.

-In the first place I read the csv file with python’s pandas library then I split our data set into two sets naming training data set and testing data set.

In the code:

-X stands for the data

-Y stands for the labels

Using sklearn’s library for gaussian naive bayes, I am fitting our training data set together and making a prediction for both the test set and training set

-Later on, I am calculating prior probabilities by simply counting the number of gender label occurrences:

- I calculated the prior-probability rate of males : 0.9

- I calculated the prior-probability rate of females : 0.1

-Along with prior-probabilities I am calculating the mean and standard deviation of every pixel over our 200 images training data set and printing them

-On the last stage I am giving the confusion matrices of two predictions that I do from both training data set and test data set.

I calculated the similar confusion matrices to the ones in the sample file but they don’t have to be exactly the same since this is a prediction.

