**ENGR421 Assignment 1 Report**

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First, I have retrieved csv files using pandas library and concatenated them into two data frames called combined\_df. Then, I determined dependent and independent variables for the algorithm, dependent variable is the labels that indicated the image contains a woman or a man, independent variables are the 64x64 pixels (4096 in total). Then, I retrieved first 200 data rows for training and the rest to test the data. Then, to calculate prior probabilities, sample means and standard deviations I have retrieved the rows of men and women in train data separately. Then, I wrote functions that calculates them individually and put them into lists. Then, I calculated the scores, which are calculated separately as woman and man, using posteriors Bernoulli. After calculating the scores, I put them into an array. Then, I iterate through rows and classified using the discriminant function, I have been using and get through each rows’ scores into argmax and put them to a list called y\_pred. I did this operation for both train and test data. Then, since indexes of woman and male are 1,2 respectively, I encoded them using sklearn to put them into confusion matrices. Finally, I put y\_preds and y\_tests (train and tests) in a confusion matrix to achieve the similar results with the homework descriptions’ results.