

In the name of God

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ADVANCED METHODS ON COMPUTATIONAL PHYSICS

Exercise Set 17

(Date Due: 1399/04/15)

Machine Learning Topic:

1. Using the sample code and Hoda data set and according to SVM, KNN, Naive-Bayes, try to recognize the handwriting manuscript including Persian numbers. To this end, divide the input data to train and test sets and finally determine the Accuracy-score and plot the confusion matrix for ten classes, namely each number corresponds to a class. (Hint: The input image for each sample is 4×4 pixels and it is possible to use instead a one-dimensional array with size 16.)
2. Using the function from load-boston from sklearn.datasets, read the house's price in Boston city and utilizing a linear regression, predict the house's price. Compute the χ^2 for that.

Good luck, Movahed
