

< CSE 302 Assignment 2 >

- (1) For MNIST data set, train **Logistic regression models** and find the best model that can achieve the highest accuracy on the test data set.
- (2) For the same data set, train **K-NN classifiers** and find the best model that can achieve the highest accuracy on the test data set.
- (3) For the same data set, train **SVM classifiers** and find the best model that can achieve the highest accuracy on the test data set.
- (4) For the same data set, train **Random forest classifiers** and find the best model that can achieve the highest accuracy on the test data set.

- You can implement all using Scikit-learn library. (I recommend it.)
- For more information about MNIST, refer to “<http://yann.lecun.com/exdb/mnist/>”
- If computational resources of your laptop or computer are limited, you can use a subset of training data for training.
- For each case, mention the effect of parameters (for example, which kernel did you use in SVM? How did you set C? and so on.)
- At the last page of your report, please provide all the best results in the Table format below.

	Logistic regression	K-NN	SVM	Random Forest
Accuracy				
Standard deviation				