**ECE 8527: Introduction to  
Machine Learning and Pattern Recognition**

# HW No. 8: K-NEAREST NEIGHBORS, SuppoRT Vector macHINES and Random Forests

Another short description ☺

Repeat HW #5 (LDA) for three new algorithms: k-Nearest Neighbors, Support Vector Machines and Random Forests. For both, optimize the parameters of the algorithms on the development data using the training data. Then produce a table showing performance on train, dev and eval for the parameter combinations you explore.

Next, add to your table of benchmarks, including the best operating point (on the dev data), for these two algorithms. Compare the decision surfaces and discuss the pros and cons of these approaches.