ENGR-E 599 – Machine learning for Signal Processing – Final Project Proposal

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Dataset:

https://archive.ics.uci.edu/ml/datasets/Smartphone-Based+Recognition+of+Human+Activities+and+Postural+Transitions

Proposal:

The idea is to predict the type of activity a person is performing, based on the signals recorded from the accelerometer and the gyroscope. Activities range from passive (standing, sitting, lying) to active (walking, walking downstairs and walking upstairs).

The signals have been preprocessed to remove noise and also sampled. The records of the activity windows can be seen as a 561-feature vector with time and frequency domain variables.

We are discussing still, as to the algorithms that we can use to identify and classify the different signals. But this dataset on the UCI Machine learning repository seems to be something that can help us understand how signals can be realized in practical situations.