

### Machine Learning Project 3: Due Nov 29th.

For the first part of the project please follow the instructions on the attached notebook (python\_Bonus\_BV).

In the second part of the project you will practice the basics of Machine Learning Classification by using k-means clustering and PCA on one dataset and a comparison of Random forests and kNN for the MNIST dataset. You will continue the good practices already established for how to describe, evaluate, and write up a report on the classifier performance.

Datasets: The project will explore two datasets, the famous MNIST dataset of very small pictures of handwritten numbers, and an exploration of the Human Activity Recognition dataset. You can access the datasets and code here:

Human Activity Recognition Set and Code:

<https://www.kaggle.com/ruslankl/k-means-clustering-pca>

MNIST Set and Code:

<https://www.kaggle.com/sflender/comparing-random-forest-pca-and-knn>

For each, write a very short report on findings.