

DS-630 Project 2  
Assigned Dec. 5, 2017  
Due Dec. 19, 2017

In this project you will employ a neural network of your choice to tackle the classification of handwritten digits from the *mnist.csv* data set. Please use  $k$ -fold cross validation for evaluating your model. The choice of  $k$  is up to you.

You will perform your modeling task twice: first on the raw mnist data and then a second time using PCA to preprocess the inputs. Please compare your results from these two methodologies. Include information on the time required to train your networks using the *system.time* function in R.