## AMATH 482/582 Winter Quarter 2018

## Homework 5: MNIST Handwriting Recognition

DUE: Friday, March 9, 2018 (at 11:45pm)

Download the MNIST handwritten digit dataset.

Build a simple 1-layer network where the perceptron identifies each of the digits. Try building a 2-layer network (or more if you feel ambitious) and optimizing to make an accurate detector of digits.

This is open-ended. Your job is to explore and have fun trying to build neural nets for classification. Be sure to evaluate the accuracy and performance of each method. If you don't cross-validate your results, you is dumb!