

CSc 59929
Introduction to Machine Learning
Assignments for Week 12
Due November 28 by 10:59 AM

- **Compete the programming exercise described in the following charts.**

Programming Exercise

1. Download the code from the textbook (with my minor modifications) for the 3-layer neural network. The code is on the Blackboard.
2. Download the MNIST handwritten digits dataset from Blackboard (or elsewhere).
3. Run a number of models varying the learning rate, the L1 and L2 regularization parameters, and (if you have time) anything else that you want to try.
4. Summarize your results including the time it takes for each model and the accuracy of the predictions for the model.

Programming Exercise

5. Upload your .ipynb file to Blackboard. Include your summary (Step 4.) in either a Word or pdf file or (preferably) in a cell (or cells) in your notebook with your code.