

Assignment 2 – Neural Networks

Due Friday April 3rd @11:55pm

This assignment must be submitted as a Jupyter Notebook, including comments on the code.

Take the code provided in class for the 2-layers Neural Network and adapt it for digit classification using the MNIST dataset. You must/should do the following:

- Adapt the code for multiclass classification.
- Test different activation functions.
- Add more layers.
- Include regularization.
- Perform model selection testing different activation functions, number of layers, number of hidden units, etc. Reduce overfitting-underfitting. Report accuracy.

Submission Guidelines:

The assignment can be done individually or in groups of two. Submit your assignment as a single zip file through the moodle link provided. Use the following naming format for your zip file:

lastnameStudent1-lastnameStudent2-as1.zip

The zip file should contain the Jupyter notebook. Any comments, equations, images or discussion should be part of the notebook.