ECEN 689: Machine Learning: Fall 2019
HW 4: Programming Assignment
Due Date: Thursday, Oct 24

In this homework, we will implement different image classifiers using linear classification method and neural network. We will use the materials from Stanford University CS 231n Course [1]

Reading Materials

1. Python and Numpy Tutorial here
2. IPython Tutorial here
3. Linear Classification: Notes here
4. Gradient Descent: Notes here
5. Backpropagation: Notes here, Video here. Backpropagation through a linear layer is derived here. Vectorized implementation is described here.
6. Neural Networks: Note 1, Note 2, Note 3

Programming Assignment

Link to the assignment page is here. Details are given below.

1. In Set Up: Skip 'working remotely' part. Follow 'working locally' part. Follow the instruction below it, to download data and start IPython.
2. We will grade only Q2 (20 points), Q3 (10 points) and Q4 (20 points).
3. You are encouraged to try Q5. However, no extra points.

How to Submit

1. Complete all the coding, filling in all the in-line questions, and the results.
2. Download the ipython notebook (.ipynb) as a HTML file (the usual File > Download as > HTML)
3. Put the step 2 files (three files in total) and the cs231n/classifiers folder in another folder called "LastName".
4. Compress(zip/rar) the folder in step 3.
5. Upload this compressed folder in eCampus

[1] Instructor gratefully acknowledges their permission to use these materials.