Assignment 2

Due: 2/1/2023

Read Chapter 1 (Online) of:

<http://neuralnetworksanddeeplearning.com/> (Michael Nielson)

Don’t focus too much on the math, I won’t be testing you on it.

Download Code from:

<https://github.com/mnielsen/neural-networks-and-deep-learning>

You can get it using github, but clicking the green code button and “Download Zip” is probably the easiest method.

You probably need to do the following sorts of things:

$ sudo apt-get update

$ sudo apt install python2

$ curl https://bootstrap.pypa.io/pip/2.7/get-pip.py --output get-pip.pyCopy

$ sudo python2 get-pip.py

Run: $ pip2 –version (to test)

$ sudo pip2 install numpy

Write (and run) some Python that looks very similar to this:

import mnist\_loader

import network

import numpy as np

training\_data, validation\_data, test\_data = mnist\_loader.load\_data\_wrapper()

net = network.Network([784, A, B])

net.SGD(training\_data, X, Y, Z, test\_data=test\_data)

Again, read Chapter 1 of <http://neuralnetworksanddeeplearning.com/> to find out what A, B, X, Y, and Z should be. Feel free to try some different numbers for A, B, X, Y, and Z, but you probably don’t want to stray too far from the suggested values.

Run the code. Take a screenshot of the output and include your “signature”.