## ELE547 FALL 2020 Assignment 4

## Artificial Neural Network

- Refer to Lecture 3 for the Artificial Neural Network with Backpropagation learning algorithm.
  - a. Download ANN.py from Brightspace under "Content".
  - b. This version was written for mouse input and a graphic screen output. Modify the code so its input is from the Joystick and the output is the 8x8 LEDs of the Sense Hat.
  - c. This Python program uses library package called "Pygame" for the input and output. This package has been installed on the Raspberry Pi (and so the document said). However, since we no longer need the mouse input and the graphic screen, this package may be removed!? In any event, if you connect your Raspberry Pi to a monitor, you may directly run this program and get familiar with it.

## For Lab Report/Presentation:

- No written report for this lab.
- Demonstrate/show the simple neural network, including its capability to learn.