

## Final Project

Due, Tuesday, December 10, 2019

1. (50 points) Implement your own neural network having two hidden layers in Python.
2. (30 points) Apply your neural network to the Wisconsin Diagnostic Breast Cancer (WDBC) data for classifying the cancer. Perform leave-one-out cross validation.

The data can be downloaded from the UCI (UC Irvine) Machine Learning Repository. The webpage that describes this breast cancer data repository can be accessed by clicking on this link:

Breast Cancer Wisconsin (Diagnostic) Data Set

and then click **Data Folder** at the top of the page to go to the download site.

Or you can click the following link directly to go to the download site:

Download

The data is in file `wdbc.data` and description of the data is in file `wdbc.names`.