Homework 01

Start Assignment

Due Monday by 11:59pm **Points** 20 **Submitting** a file upload
File Types ipynb, html, and pdf **Available** Jan 29 at 4pm - Feb 13 at 11:59pm

You are going to repeat this exercise in both TensorFlow (part1) and PyTorch (part2)

Use the provided datafile and complete the following steps. Complete the assignment within a .ipynb notebook. Submit either the .ipynb, .html, or .pdf of the results.

Step 1. Import the data from the given .csv file (**diabetes.csv (https://sjsu.instructure.com/courses/1585768/files/75906427/download?wrap=1)** **(https://sjsu.instructure.com/courses/1585768/files/75906427/download?download_frd=1)**). The first few columns contain the data while the last column is a binary class label of 0 or 1

Step 2. Preprocess the data as you see fit and show basic data visualization for better understanding of data

Step 3. Split into 80% train 20% test

Step 4. Modify the model shown in the demo to take the new data

Step 5. Train the model on the data

Step 6. Make predictions on the test data and compare them to the test labels

Step 7. Calculate the accuracy of your results

Step 8. Hypothesize changes you can make to the model. Type out your hypothesis as comments in the code or in a text cell. (ex. doubling the width/depth of your NN, experiment thoroughly)

Step 9. Test your hypothesis by training your new models

S**tep 10.** Show the results of your changed models by repeating steps 6 and 7. Discuss the differences and explain why.