Homework: MNIST Classification using Deep Learning

Due: Jan 31st 5pm EDT

To submit:

- **A report on how you solved the problem – step by step implementation of the code (what did you install; download; libraries you used etc.)**
- **Report your TensorFlow code (Jupiter or a print/text copy paste from the notebook).**
- **Need to see comments for each part of the code.**

Action Items:

1. Create your input pipeline

2. Load a dataset

3. Build a training pipeline

4. Build an evaluation pipeline

5. Create and train the model

6. Build a testing pipeline (similar to the training pipeline with some small differences)

7. **REPEAT 1-6 and report results after you**: Adjust your learning rate; batch size or other hyperparameters and discuss the results.

8. **REPEAT 1-6 and report results after you**: Use at least 2 different optimizers and discuss the results [For this action item you do NOT need to repeat all tests you did in action item 7; <u>just use another optimizer on the best model you tested</u>].