**Spring 2020 CMP 414 Final Project**

Please choose **one of the following options**.

**Option 1: Replicate an advanced TensorFlow project**

1. Browse the advanced TensorFlow projects under the Images/Text/Structured data/Generative category in TensorFlow tutorial website: <https://www.tensorflow.org/tutorials/>
2. Choose one project that you can replicate the results.
3. Modify the model in a meaningful way (add layers, change activation functions, etc.) and report the performance of the new model.
4. Show that you fully understand how the program works by adding explanatory comment for each statement. (Alternatively, you can make a video explaining going through the code.)

**Option 2: Complete a Kaggle competition**

1. Browse the data science competitions on Kaggle: <https://www.kaggle.com/competitions>
2. Participate one competition that you are interested in:
3. Apply at least three appropriate machine learning models on the data.
4. Identify one model that works best on the problem.
5. Fine-tune the model parameters.
6. Make a submission to Kaggle and report the score.

**Instructions:**

1. Complete the project on your own.
2. All code should be executed, and results should be displayed.
3. Writing is as important as coding. Clearly describe every step that you take.
4. Submit your work to Blackboard by Thursday, May 21st. Late submission will not be graded.