FINAL PROJECT

Due Thurs. Apr. 25, 2019 @ 10am

The goal of the final project is to apply techniques *learned in this course* to some machine-learning task of your choosing.

- The task is up to you, but keep in mind that we've focused on classification and regression tasks in this course. For example, maybe you are working on a project for some other class that data associated with it, and you wonder whether some of the methods we discussed in this course could be applied. Or maybe you have something fun in mind, like "design a neural net to play tic-tac-toe." Or maybe you'd just like to choose an existing dataset and do a comparison of several techniques that we've learned about. You can find datasets at
  - The UCI repository: `https://archive.ics.uci.edu/ml/index.php`
  - TorchVision: `https://pytorch.org/docs/stable/torchvision/datasets.html`
  - Others in `https://towardsdatascience.com/top-sources-for-machine-learning-datasets-bb6d0dc3378b`
- The goal is not to design the best method ever, but to demonstrate *your* mastery of the techniques that we've covered *in this course*. You will not get credit for merely downloading and running somebody else's code.
- I encourage you to work in groups of 2–3 people. Each group submits one set of deliverables.

There are two phases of the project:

1. **Project Plan** (Due Friday Apr. 5, 2019 in class): Submit a 1–2 page pdf that describes ...
   - which students are on your team,
   - the task (what is the overall objective?),
   - the training and testing data you plan to use,
   - the methods you will compare, and the metrics you will use for comparison,
   - a list of any references that you may be using (e.g., papers, blogs).
2. **Final Report & Code** (Due Thursday Apr. 25, 2019 @ 10am in DL616): Submit ...
   - Final report: A pdf that describes the task, the data, and the methods, any references, and your findings (e.g., how the methods compared, what challenges you faced, etc.)
   - Python code (preferably Jupyter notebook) that the TA can run. We will set up GitHub repositories for submission, similar to the labs.

Warning: **No plagiarism allowed!** We will check using TurnItIn. Write your report *using your own words*. If you use code fragments written by somebody else, you must reference the source.