

**Software Packages:** For the purposes of our ML project, we will use MATLAB as our primary software environment. We will incorporate MATLAB's Statistics and Machine Learning, Neural network toolbox as well.

For our algorithms, we will write our own linear classifiers (Logistic Regression, Perceptron and Pegasos), but will use the built in implementations of SVMs and neural nets as they're heavily optimized in toolboxes so it's better to tradeoff implementation for efficiency.

**Division of work:** We plan to divide the work equally amongs our 3 team members. Specifically, each team member will contribute equally in all stages of the project, and final decisions will be made with full consensus. For instance, each of us will implement a linear classifier each, and will work on more involved neural network part together.

**Open questions:** Is neural network a good choice for the scope of this project? What kind of accuracies would our linear classifiers produce? How much data would be needed to get decent results from various models? How would we measure the accuracy of our models? What cross-validation methods would we use?