

EN.601.681 Machine Learning: Optimization
Final Project Proposal
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Due: Friday, November 09, 2018

Machine Learning Problem

The machine learning problem we will be exploring is binary classification in a few different application areas - namely, problems with images and with text as input.

Tentative Algorithms to Implement

The algorithms we plan to compare and analyze for our problem are the PEGASOS algorithm and the LASSO algorithm, with additional exploration of the ISTA/FISTA methods likely also implemented depending on the speed of our progress with the first two.

Tentative Datasets to Experiment On

We believe we will want to analyze our algorithm's performance on two datasets out of University of California Irvine's machine learning program. One is a compilation of text messages labeled as either spam or not spam, and the other consists of mammograms labeled as either malignant or benign.

Team Members

The members of our team would be:

Peter Klinkmueller, Archan Patel, William Ye, and Jason Zhang