Midterm Project Report CS 6350 Machine Learning

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Progress

Overview

First I attempted to use SGD logistic regression, but found more consistent convergence results using lbfgs solver. (occasionally did not converge to good optima) Then plotted learning curve and saw that the model suffers from high bias meaning that we would benefit from a more powerful model. Exploring nonlienar etc.

Then tried SVM linear, got similar results, used a different SVM kernel got results...

Data Preprocessing

Logistic Regression

Support Vector Machine Classification

Next Steps

Try optimizing hyperparameter when using SGD, deep learning, ensemble methods.