

# CS190I HW3 Report

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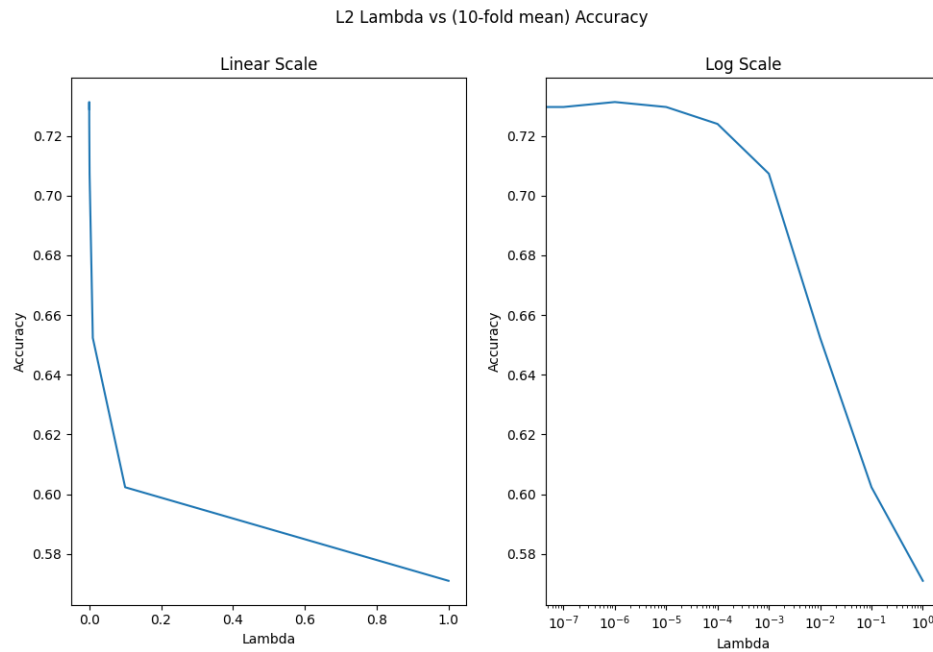
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## 1 Collaboration

Did you receive any help whatsoever from anyone in solving this assignment? **No**

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## 2 Report



The results seem to show that a harsher penalty (greater lambda) for a longer weight vector generally decreases the accuracy. L2 regularization serves to mitigate overfitting to a particular set, preventing the model from learning arbitrary artifacts present only in the training data. Perhaps it actually hurts the accuracy in this example because the training and test sets are from the same distribution. Since both are from the provided training set (Xtrain.csv, Ytrain.csv), perhaps the regularization is actually preventing the classifier from learning a better decision boundary for this overall training distribution.