

Stat 202A Homework 2

Instructions

- (1) Write R code for ridge regression, based on sweep operator.
- (2) Write R code for piecewise linear spline regression, based on the code for ridge regression. Explore the relationship between regularization, training error, and testing error.

For this assignment, you will be submitting 2 files to CCLE:

1. The completed R script containing R code for ridge regression and piecewise linear spline regression.
2. A separate document (e.g. pdf, .doc file, R markdown file) illustrating how you explored the relationship between regularization, training error, and testing error. There are many possible ways to approach this problem. For example, you can show plots for training error and testing error as a function of the regularization parameter, with an explanation of what you are seeing. You can use simulated or real data, it's up to you. Include your code inside this document so that I can reproduce your results.