DSA211 Statistical Learning with R

Homework 9

Use R functions and data set College in the ISLR package to solve the following problem:

1. Based on the **College** data set, predict the number of applications received, **Apps**, using the other variables as independent variables. Randomly sample (with set.seed 169) 500 observations from the data set as a training set and the rest observations as a test set.

   (a) Fit a multiple linear regression model using least squares approach on the training set. Report the coefficient estimates of the training model and the test error obtained.

   (b) Fit a ridge regression model on the training set, with λ chosen by cross-validation. Report the test error obtained, along with the coefficient estimates of the final model.

   (c) Fit a lasso model on the training set, with λ chosen by cross-validation. Report the test error obtained, along with the coefficient estimates of the final model.

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