PS9

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1 6

The optimal lambda is = Result: lambda=0.0104
The in-sample RMSE = Aggregated Result: rmse.test.rmse=0.2046566
The out-of-sample RMSE = 0.2034623

2 7

The optimal lambda is = Result: lambda=0.083
The in-sample RMSE = Aggregated Result: rmse.test.rmse=0.1540759
The out-of-sample RMSE = 0.1879554

3 8

The optimal lambda is = Result: lambda=0.068
The in-sample RMSE = Aggregated Result: rmse.test.rmse=0.1658463
The out-of-sample RMSE = 0.1613511

4 9 Explanation

Error due to bias is the bias taken from the difference between the expected and the prediction model. And Error die to variance is the variability taken from each individual point. After running three different models to calculate RMSE, LASSO, Ridge, and Net Elastic, we now have a balanced model in terms of the bias-variance tradeoff. By just running a simple linear regression model we would not get a balance between bias and variance.