

Lab 5

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The purpose of the lab is to implement linear regression and ridge regression. When the model is trained, the training data is used to calculate the value of w . When the model is tested, the value of w is used to calculate the predicted value of y .

	Train RMSE	Test RMSE
Linear Regression	0.12768967421762192	0.1443418165192902
Ridge Regression	0.1313432042461579	0.14726361863633008

The train RMSE is less than the test RMSE. Because the model is trained on the training data, the model fits the training data better than the testing data. The ridge regression RMSE is greater than the linear regression RMSE. Because the value of λ is not optimized for ridge regression, linear regression fits the data better than ridge regression.