

Training Mean Squared Errors for Various Regression Models

Owen Huff and Ilya Berezin

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Appendix to Project 1 - FYS-STK 4155

Ridge Regression on Franke Function

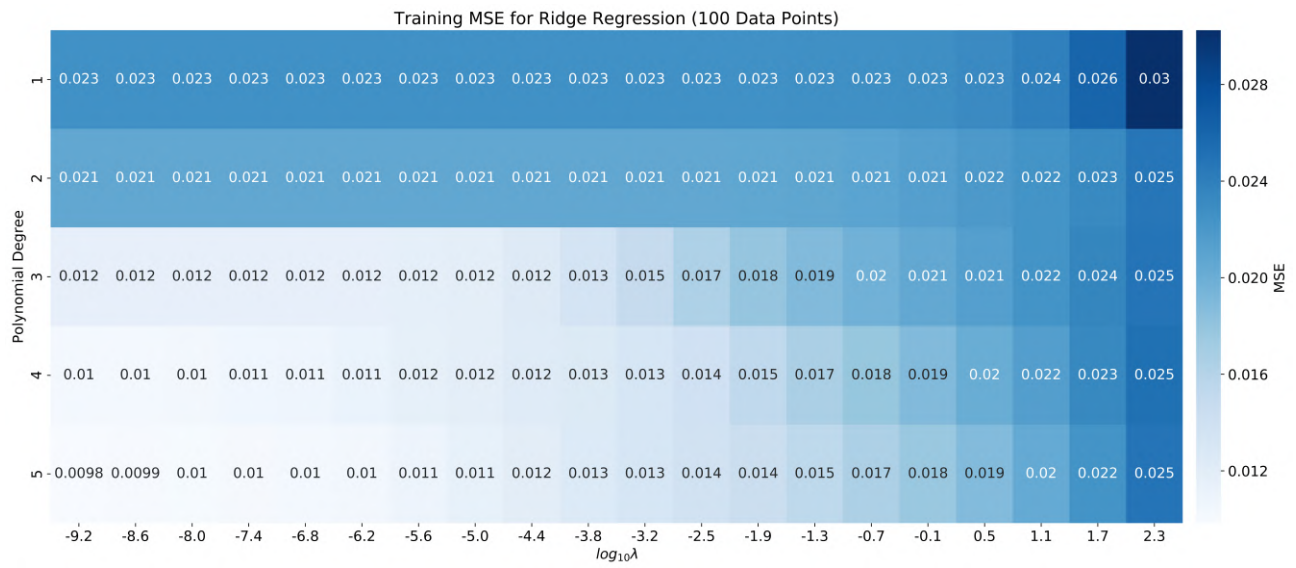


Figure 1: Ridge regression training error over polynomial degree.

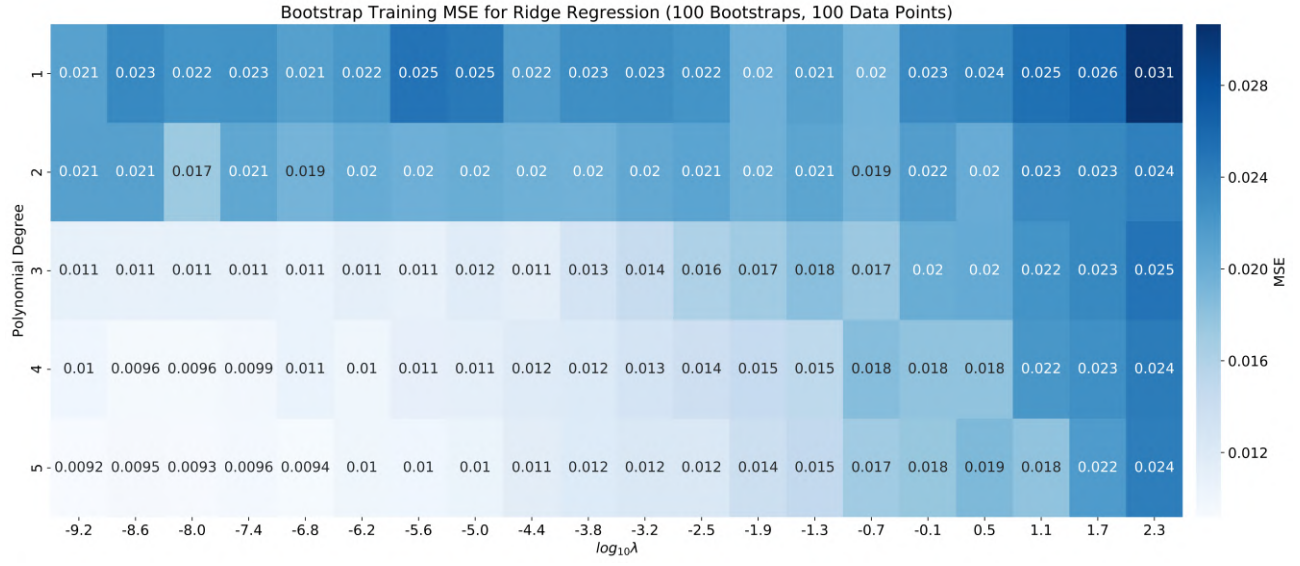


Figure 2: Ridge regression bootstrap training results.

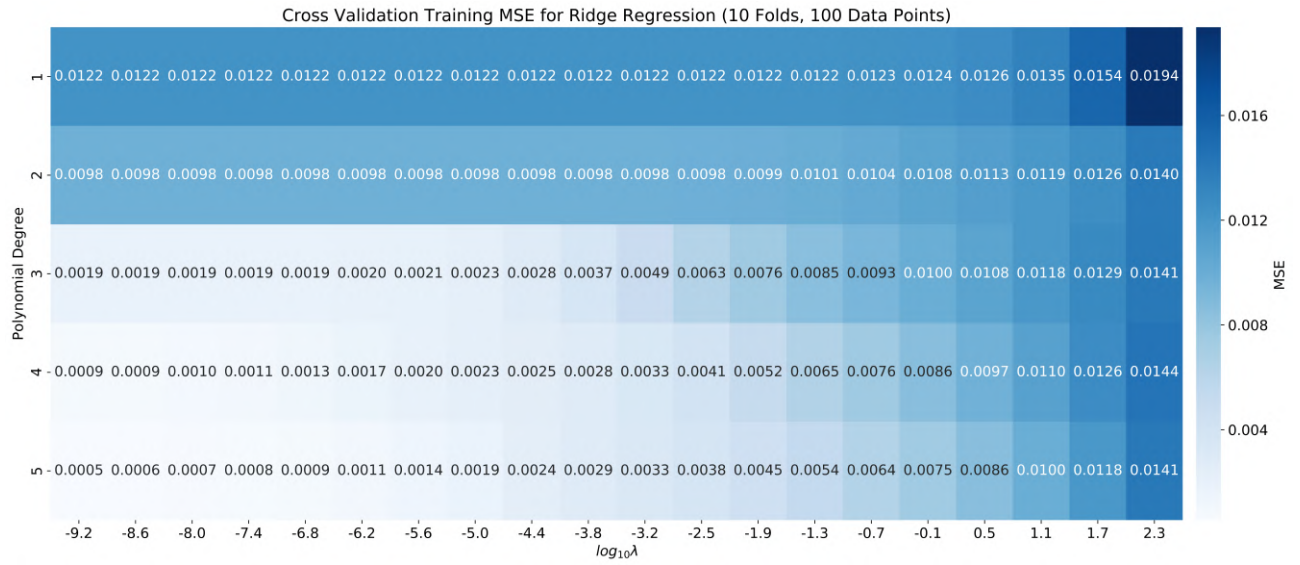


Figure 3: Ridge regression CV training results.

Lasso Regression on Franke Function

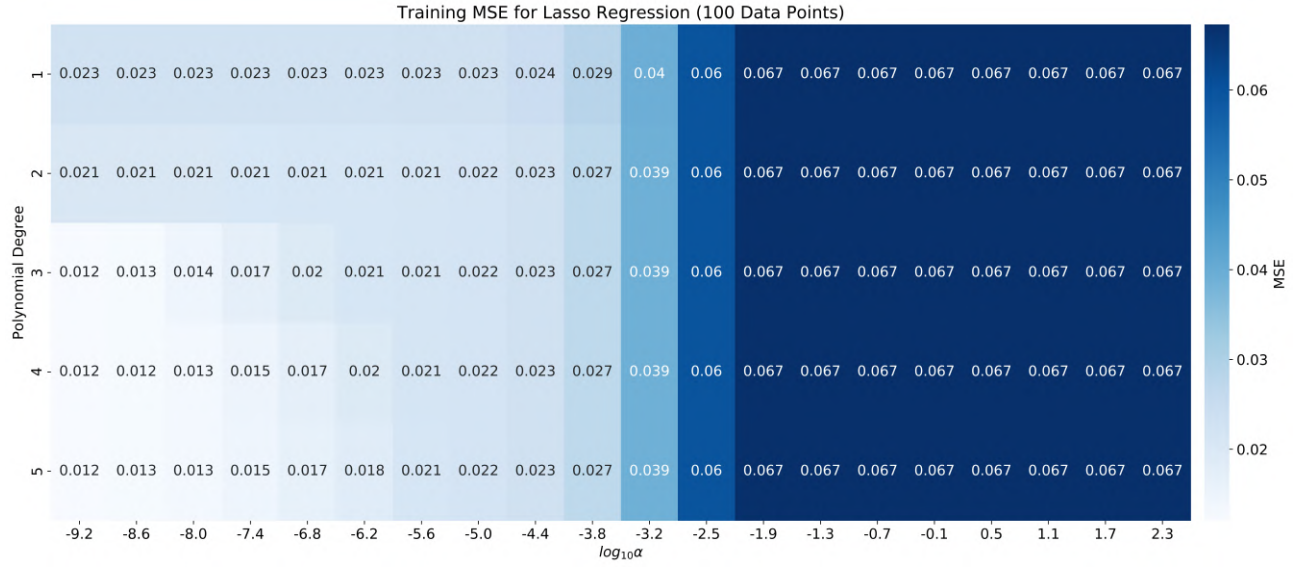


Figure 4: Lasso regression training error over polynomial degree.

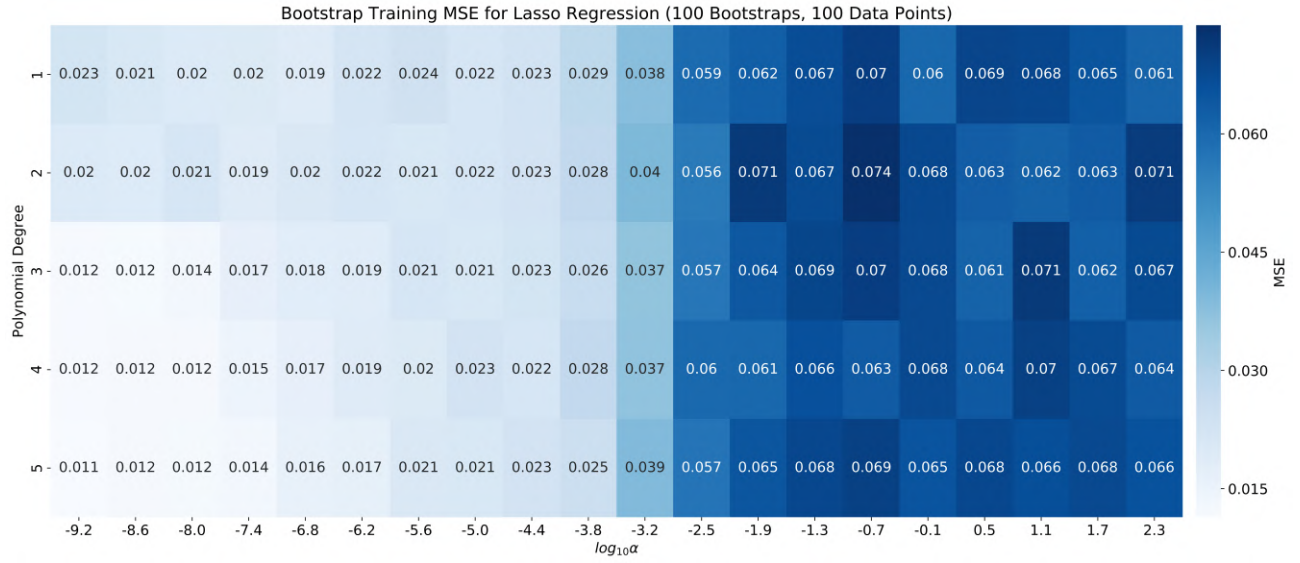


Figure 5: Lasso regression bootstrap training results.



Figure 6: Lasso regression CV training results.

Real Topography Data

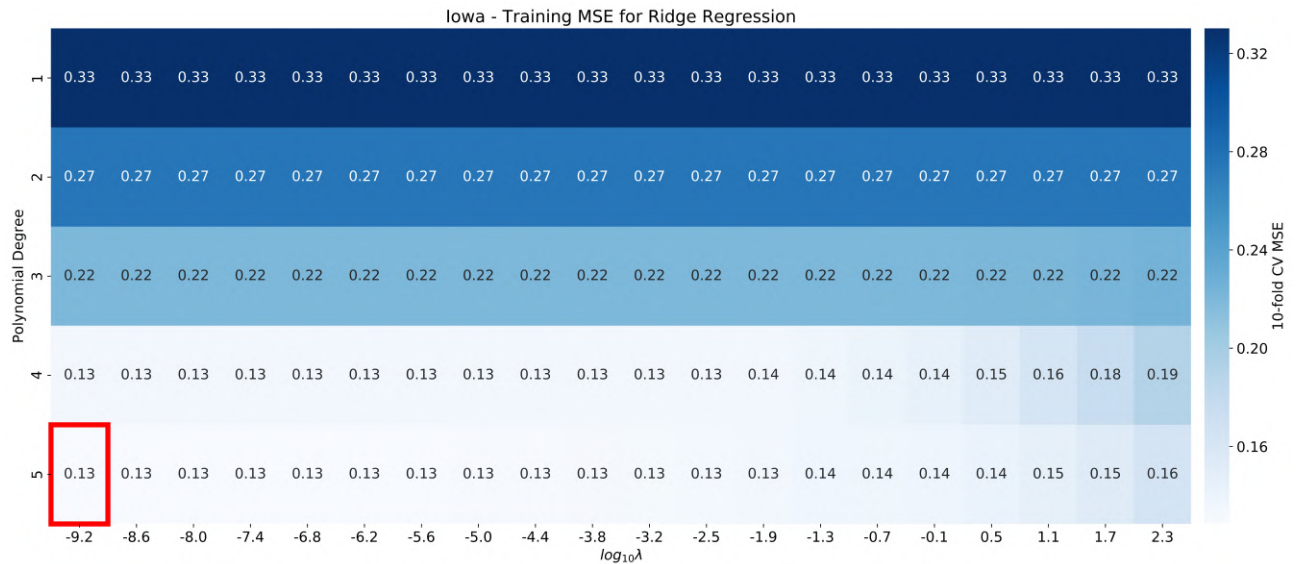


Figure 7: Iowa ridge regression training results with 10-fold cross validation. Lowest value is boxed in red indicating the best performing model.

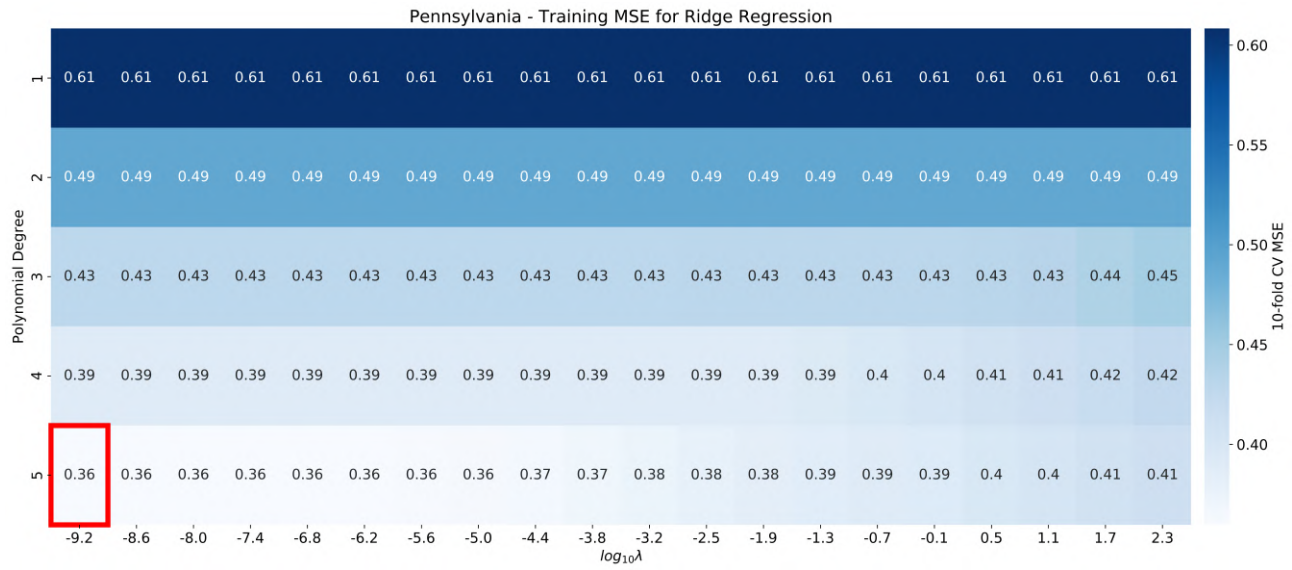


Figure 8: Pennsylvania ridge regression training results with 10-fold cross validation. Lowest value is boxed in red indicating the best performing model.

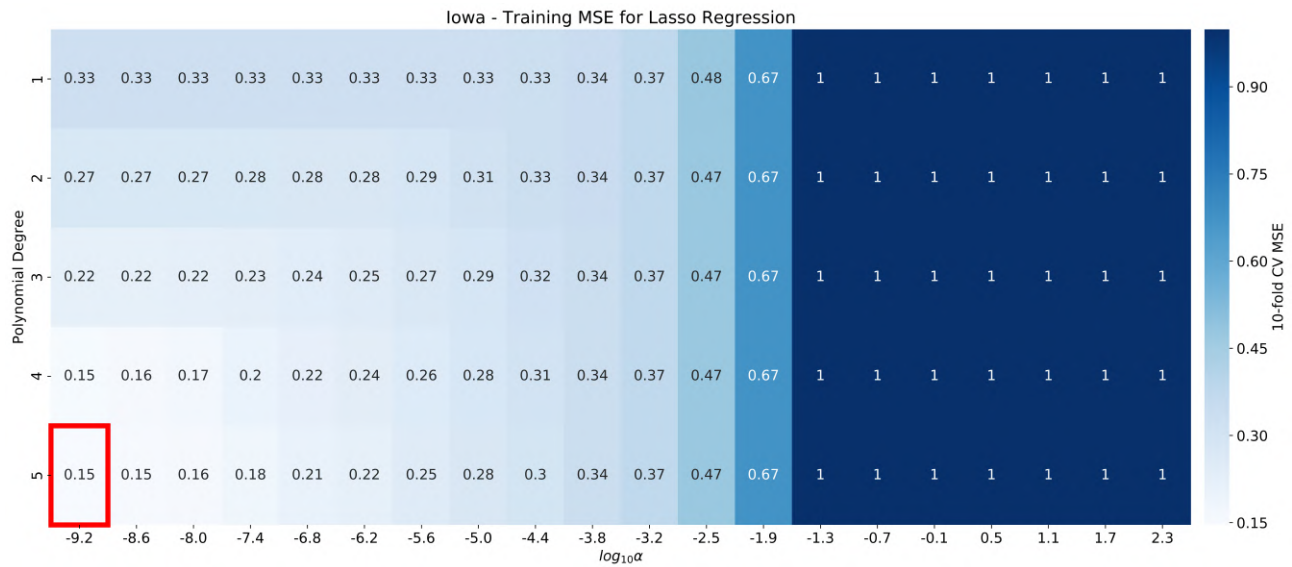


Figure 9: Iowa lasso regression training results with 10-fold cross validation. Lowest value is boxed in red indicating the best performing model.

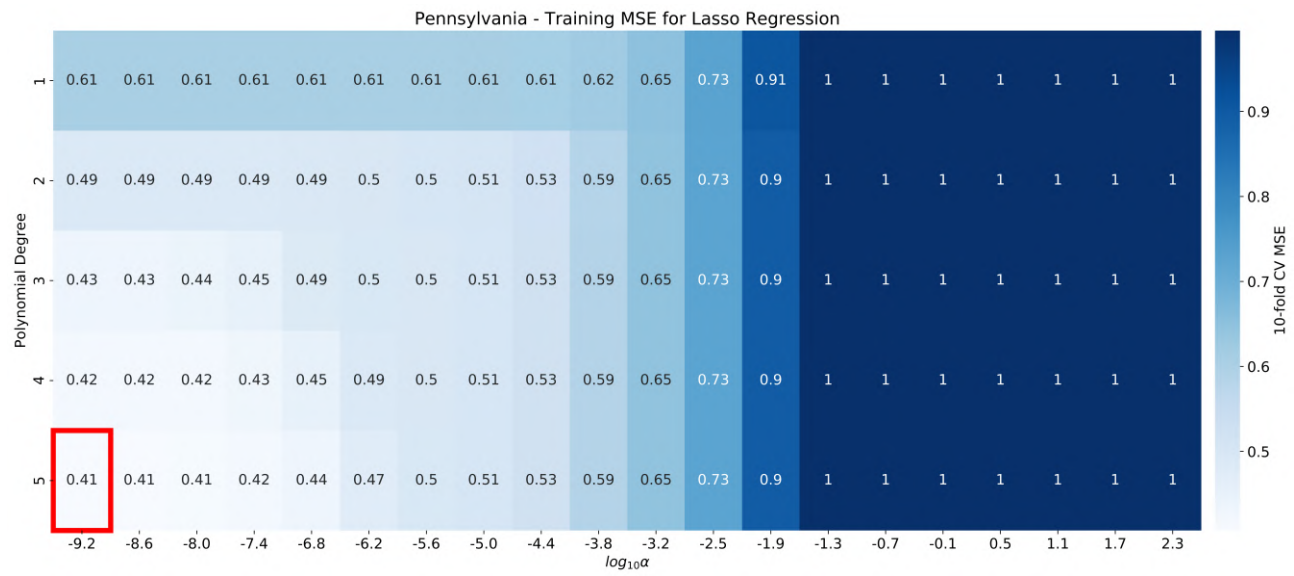


Figure 10: Pennsylvania lasso regression training results with 10-fold cross validation. Lowest value is boxed in red indicating the best performing model.