Q5.2

January 25, 2024

Considering the Lasso Minimization:

$$\frac{\text{RSS}}{n} + \lambda \sum_{j=1}^{p} |\beta_j|$$

Noting that this L_1 regularization penalizes large coefficients,

a) The MSE on the test data ... **initially decreases and eventually increases again**

b) The MSE on the training data ... **steadily increases**

c) The irreducible error on the test data ... **remains constant**

d) The squared bias on the test data ... **steadily increases**

e) The variance on the test data ... **steadily decreases**