
CMSE381 - Quiz 6

I will adhere to the Spartan Code of Honor in completing this assignment.

Signed: _____

6pts: 2pt for knowing the general idea

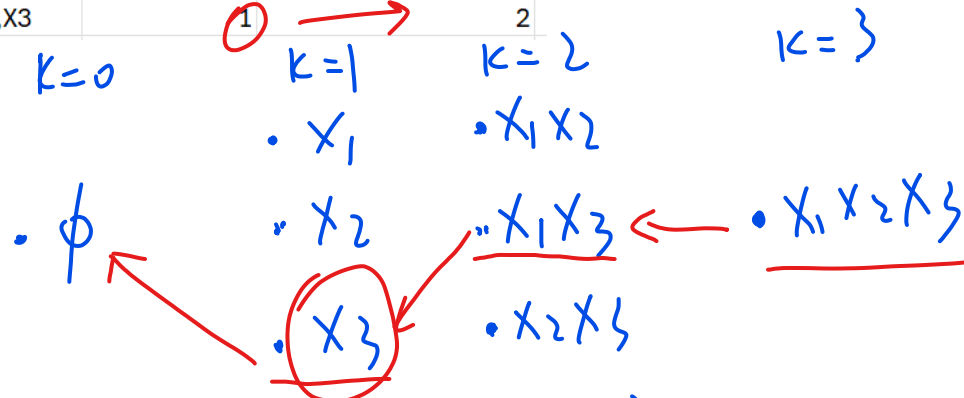
3pts for correctly identifying the best subset in each column

1pt for the final correct answer

1. I have computed the training and test MSE for my credit dataset as shown in the table below. What would be the optimal subset returned by the backward (subset) selection method? (Provide as much details as possible to receive partial credit)

	Training MSE	k-fold CV Testing error
Null Model	2	2.5
X1	1.2	1.3
X2	1.4	1.6
X3	1.1	1.11
X1,X2	1.6	1.9
X1,X3	1.2	2.1
X2,X3	1.4	1.7
X1,X2,X3	1	2

Cardinality of subset: k



The best subset is $\{X_3\}$

2. While you can always standardize predictors X_i prior to learning your model, which of the following **require** standardization. Circle all that apply.

4pts

A. Least Squares Regression

B. Ridge

C. Lasso