

Language: Python

Data tidying:

1. replaced NA values with none,0,median or the most frequent values
2. transform skewed data using boxcox transformation

Feature engineering:

1. created feature 'TotalSF' as a combination of 'TotalBsmtSF', '1stFlrSF' and '2ndFlrSF'
2. created feature 'TotBsmtFin' as a combination of 'BsmtFinSF1' and 'BsmtFinSF2'
3. created feature 'TotBath' as a combination 'FullBath', 'HalfBath', 'BsmtFullBath' and 'BsmtHalfBath'

Feature selection:

1. Keep only feature that have coefficients different than zero using LASSO model

Modelization:

1. Ridge Model
2. LASSO Model
3. Extreme Gradient Boosting Model
4. Gradient Boosting Model
5. Light Gradient Boosting Model
6. Single-Hidden Layer Perceptron Model (using Tensorflow with normalized features)

Training:

1. Average of 5-folds cross validation (for the first five models)

Results:

1. Weighted Average of the models above