AMES Housing Analysis

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Objective

TO ANALYSE THE AMES HOUSING DATASET FROM THE AMES ACCESSOR'S OFFICE CONTAINING INFORMATION OF RESIDENTIAL PROPERTIES SOLD IN AMES (IOWA) FROM 2006 TO 2010

TO DEVELOP A REGRESSION MODEL TO PREDICT THE SALE PRICE OF HOUSES

TO PROVIDE RECOMMENDATION WITH INSIGHTS FOR HOMEOWNERS ON WHAT HOME IMPROVEMENT WHICH WILL IMPROVE HOUSING PRICE

Introduction

Analyzed historical housing sales data in Ames, Iowa

2,051 transactions between 2006 and 2010

Prices range from **USD 12,789 to USD 611,657**

25 neighbourhoods

Process

- Exploratory data Analysis
- Remove outliers
- Handle null values in dataset based on group
- Feature Engineering
- Model selection
- Feature filtering
- Train model and score
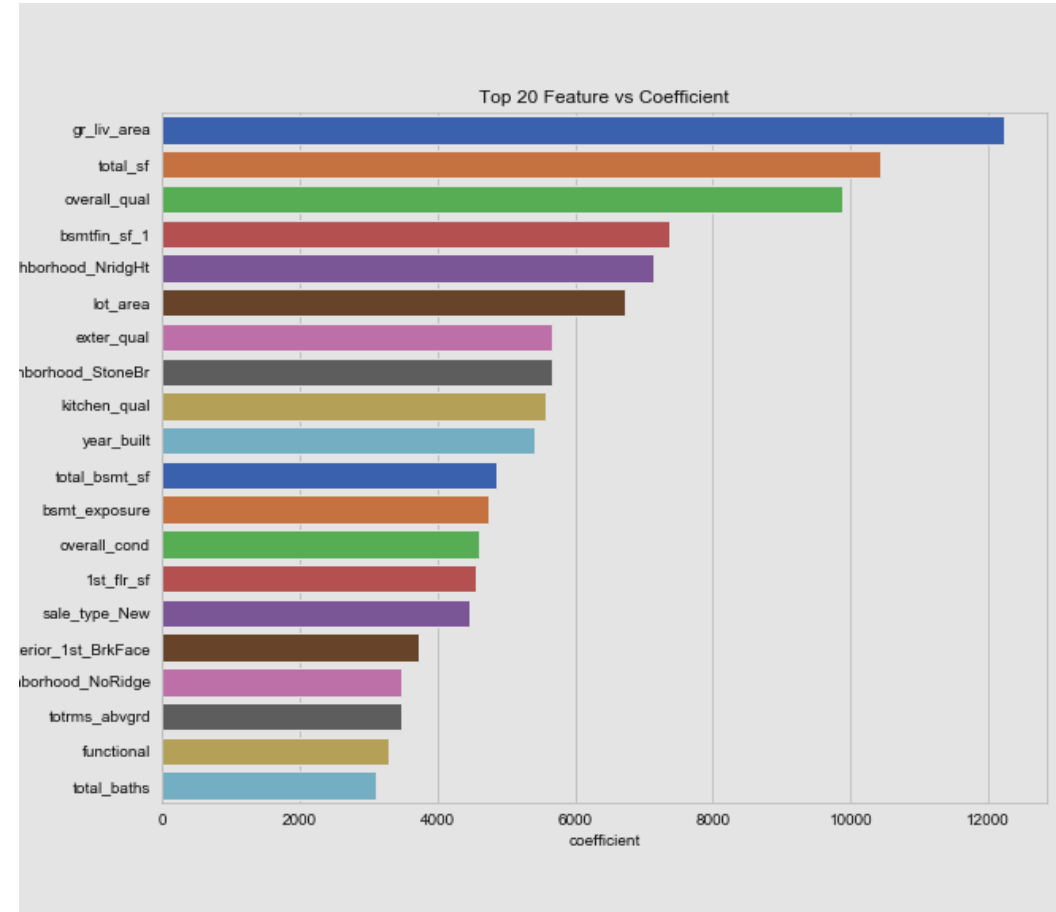- Validate with Kaggle test set

Insights from
our model

Valuable features to increase housing pricing
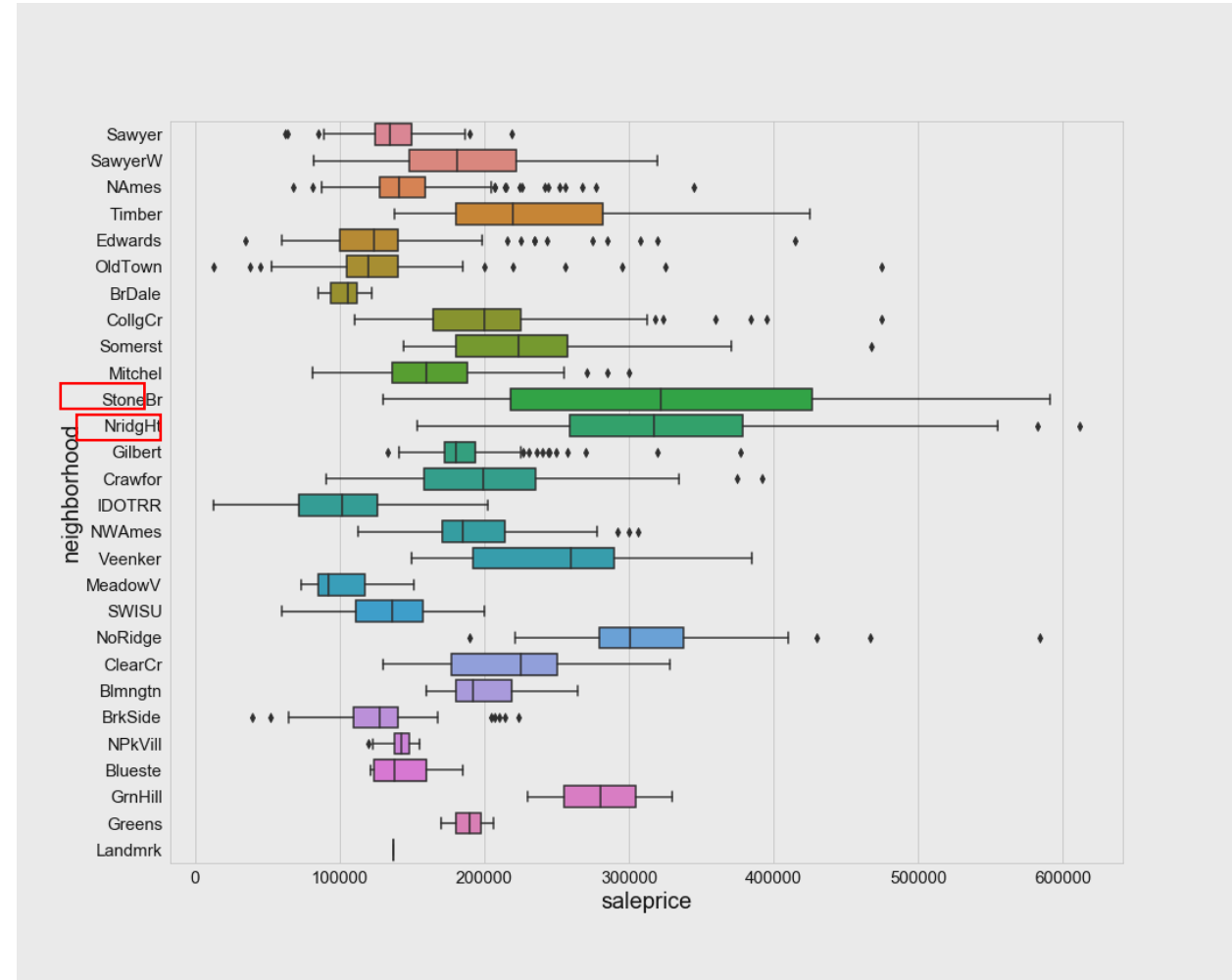
Total Surface Area

Overall quality of house

Year Built of housing

Top 20 Feature vs Coefficient

Prime Neighbourhood

North Ridge Heights

Stone Brook

Recommendations

Maximizing **Sale Price**

New Owners

Year Built
Get a newer house of lesser tenure

Surface area
Maximise property space (living, basement, garage areas and the number of rooms)

Neighborhood
Look into Stone Brook or Northridge Heights if possible

Existing Owners

Housing Condition
Perform maintenance works just enough to meet the average condition

Housing Quality
Perform renovation works to improve the material/finishing of your house