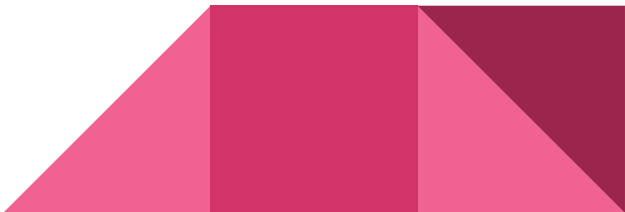


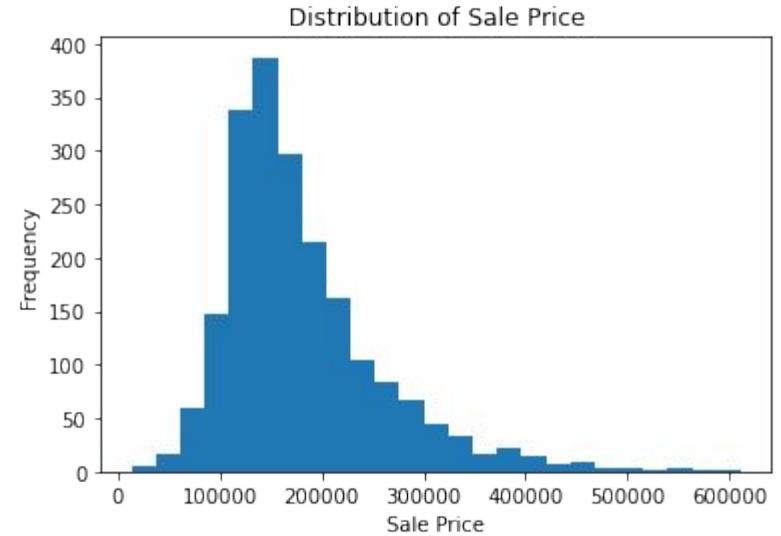
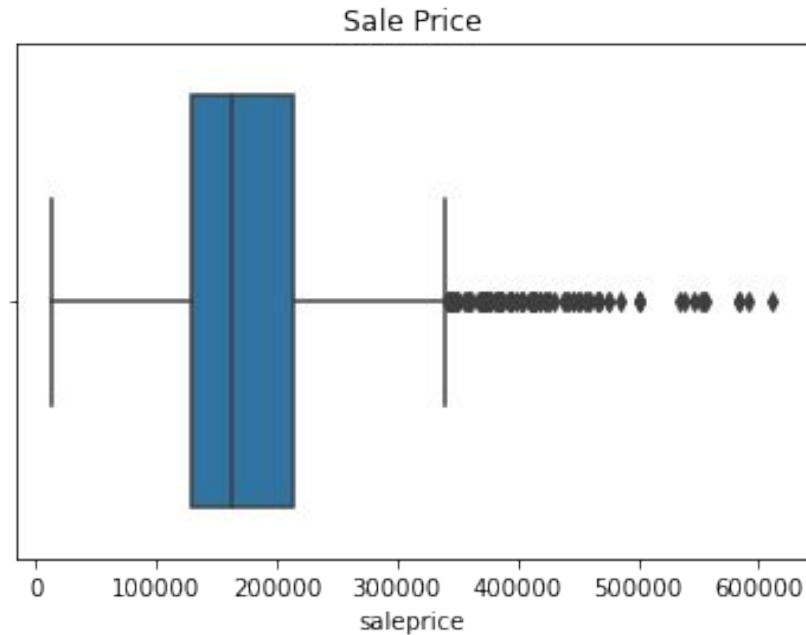
Renovating the Features of a House That Matter

Seung Woo Choi

Problem Statement

- **Context:** Data science consultant for real estate agency, interested in features that contribute the most value to sale price
 - **Goal:** Determine the most important features for predicting sale price of houses in Ames, Iowa
 - **Evaluation metrics:** RMSE & R-squared
- 

Limitation of Outliers



Defining a Successful Model

- **Baseline model:**
 - RMSE: \$79,262
 - R-squared: 0.0
- **Production model:**
 - Better than the baseline model

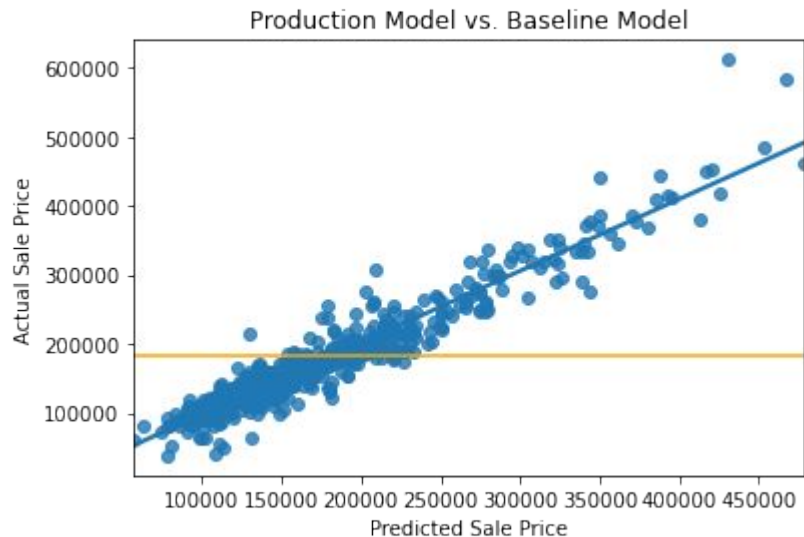


Data Source

- Assessor's Office in Ames, Iowa
- Data collected between 2006 and 2010



Understanding the Model



- **Model:** Ridge Regression
- **Features:** 14 in total
- **Selection criteria:**
 - Correlation with sale price
 - Domain knowledge

Conclusion

- **Performance of production model:**
 - RMSE: \$24,410
 - R-squared: 90.8%
- **Recommendation for future model:**
 - Separate, tiered models based on specific price ranges
- **Feature to improve:**
 - Kitchen quality





Thank You!