

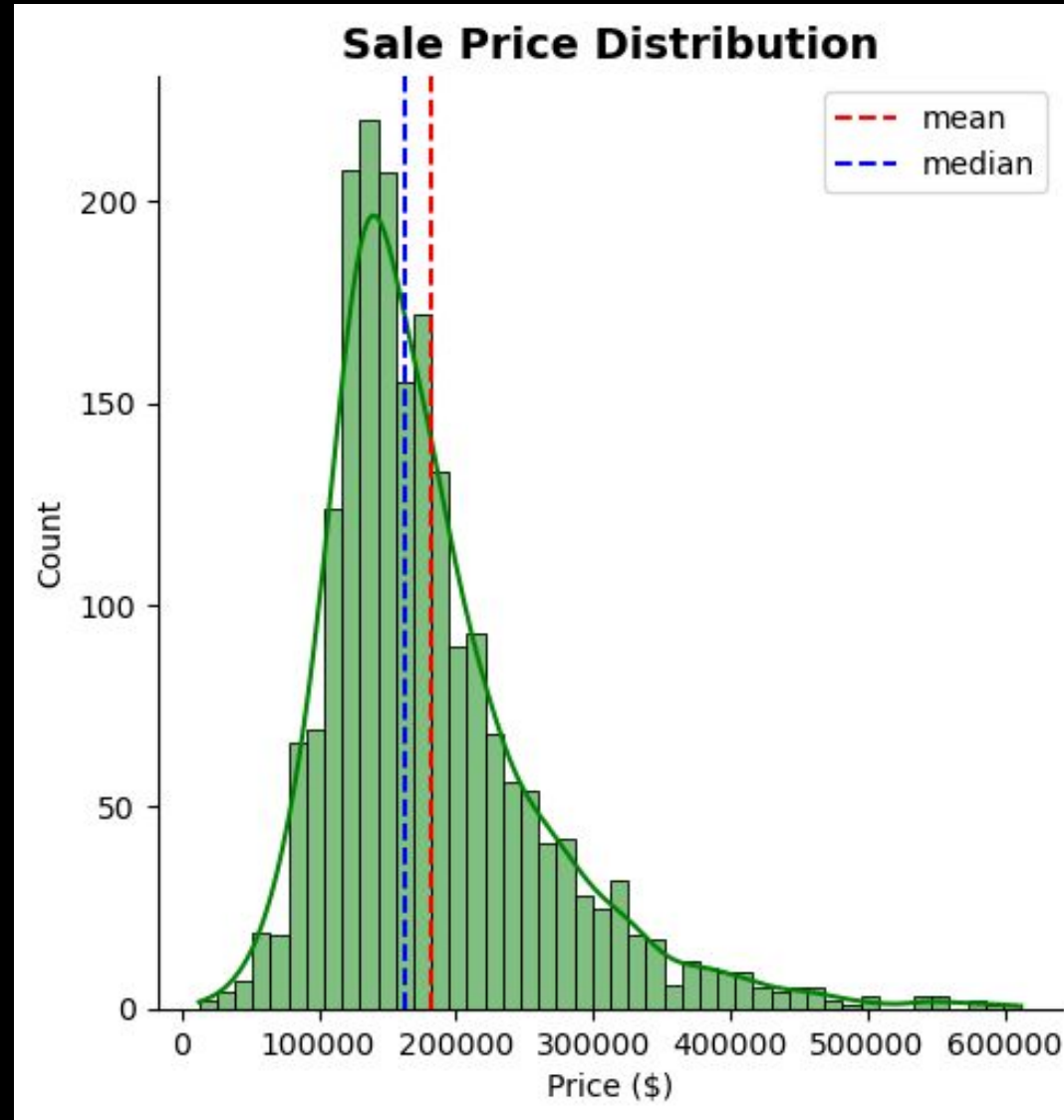
Ames Housing Data: Predictive Modeling

Brian Pinto

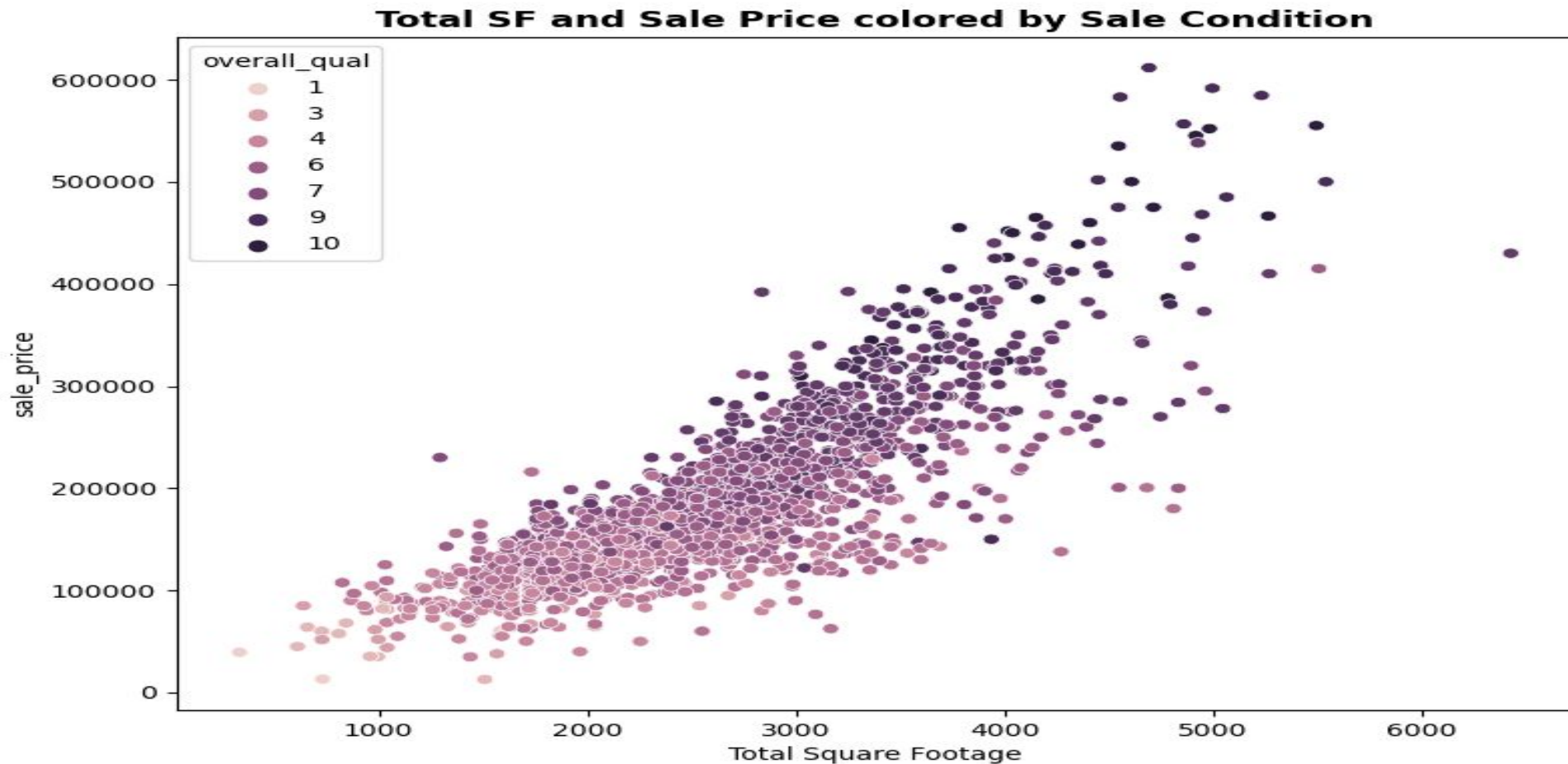
Problem Statement

- Real estate companies, homeowners, and potential buyers are interested in discerning the market value of their residential properties.
- The goal is to build a powerful predictive model that provides reasonably accurate estimation of sales price.
- Success with this model in this specific city and engender the development of similar models for any locale worldwide.

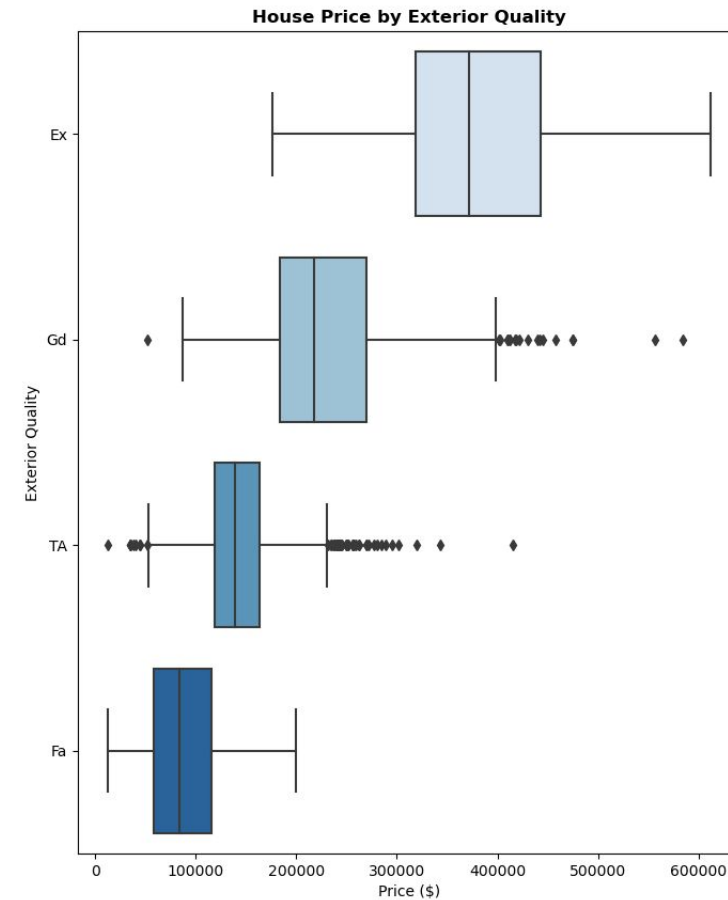
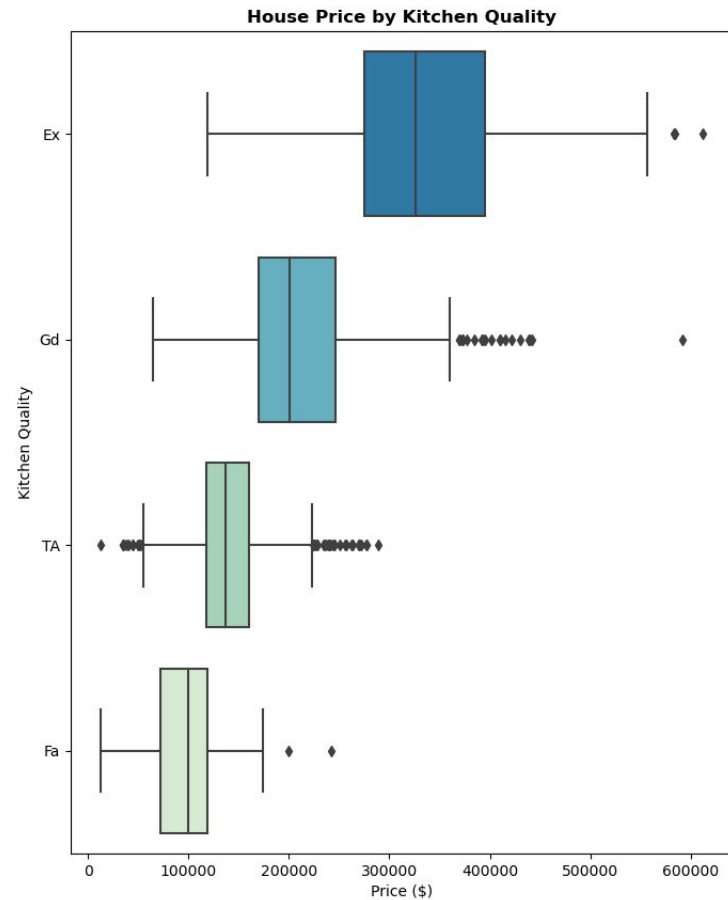
Sale Price Distribution



Influence of Numerical Variables



Influence of Categorical Variables



Feature Engineering



Model Comparison

Model	Train RMSE	Test RMSE
Multiple Linear Regression	20,771	21,626
Ridge	21,238	20,656
Lasso	20,096	21,501
ElasticNet	21,139	20,532

Conclusion

- Models were moderately successful in making predictions but they can be further improved.
- Seemingly impossible to ascertain impact of individual variables.
- Can envision similar models being constructed in other locales provided necessary data exists.