



# **Predicting Value:**

## **Aiding Home Appraisers Objectively**

### **Determine the Value of a Home in Ames, Iowa**

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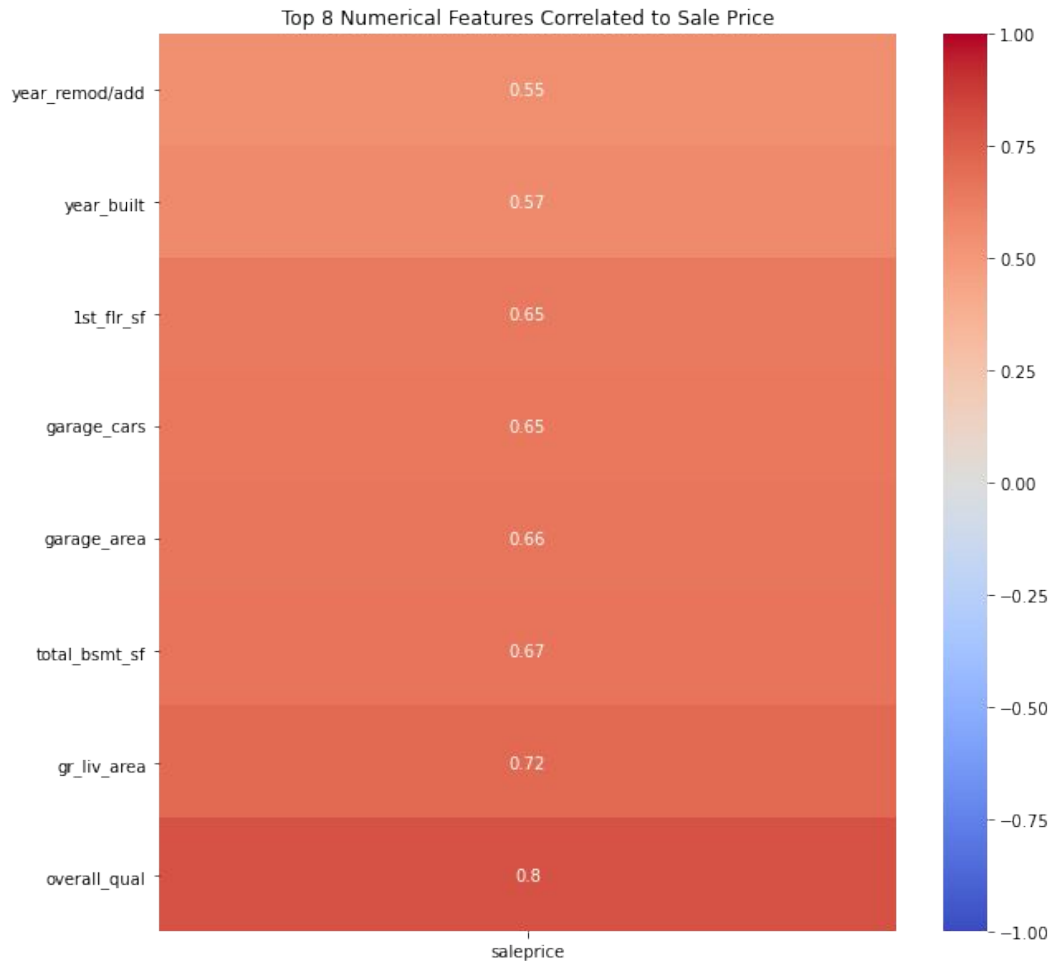


## Executive Summary

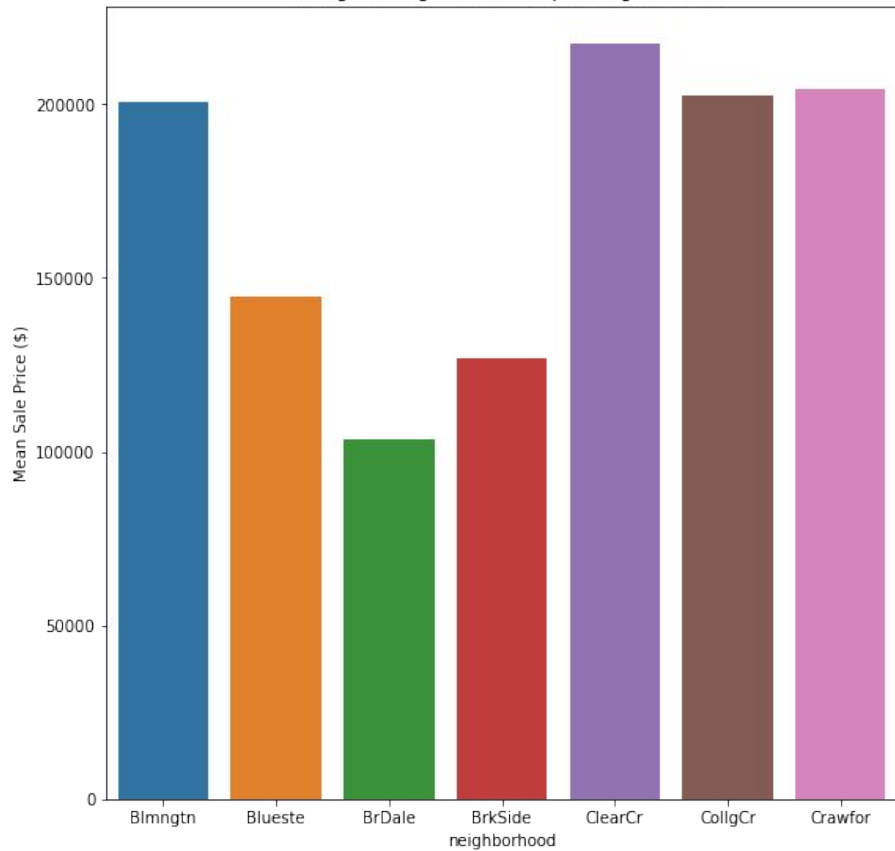
- Data
  - Ames housing data collected utilizing standardized appraisal checklist
- Model
  - Measure of success
  - Model tuning tradeoffs
- Conclusion
  - Why you should use my model for your next home appraisal

## Data

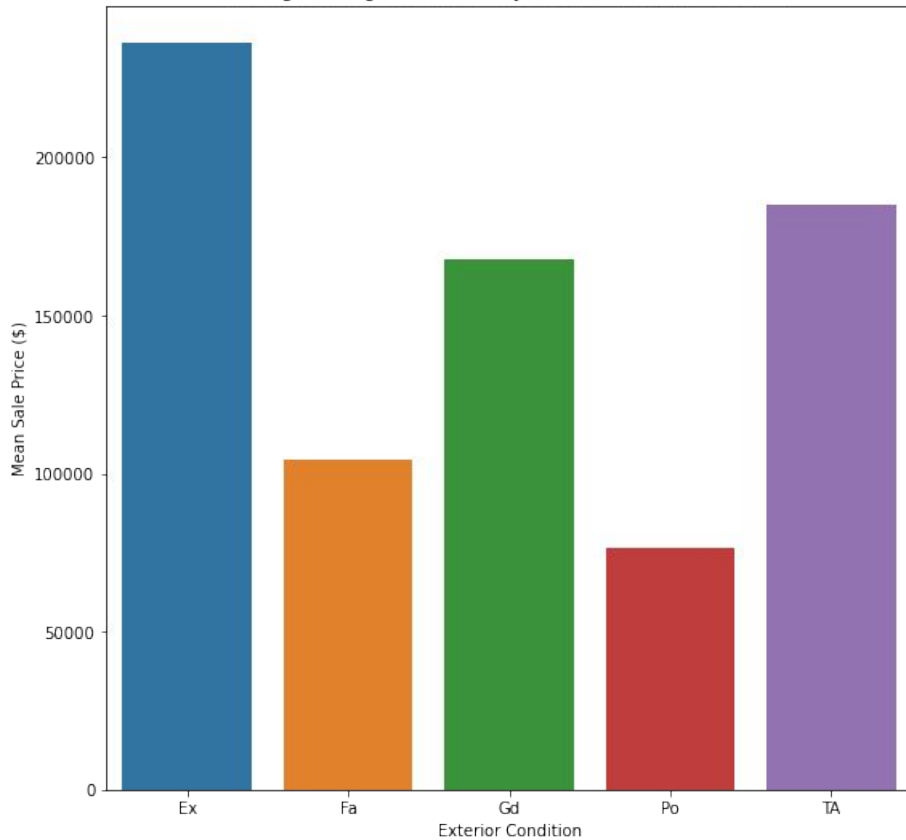
- 81 features
- 2051 samples



Average Selling Price Varies per Neighborhood



Average Selling Price Varies by Exterior Condition of Home





## Modeling Likely Home Prices

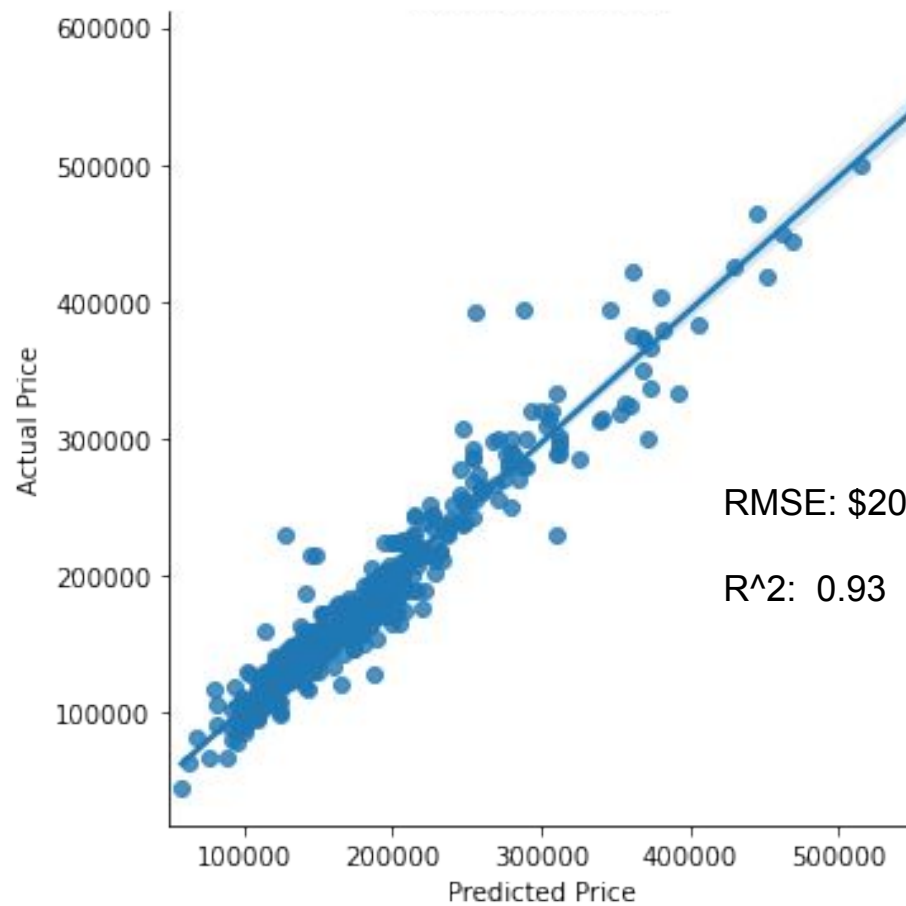
- Data
  - Home appraisal checklist for Ames, Iowa
- Measuring Success
  - Accuracy
    - How much variation in a home's sale price can my model account for?
    - What is the standard error?
  - Efficiency



## Model Tuning

- Iterative process
- Created 6 models in all
  - Each model accounted for the unique features differently
- Trade-off between accuracy and performance

Production Model





## Conclusions

- My production model is a substantial asset to home appraisers
- Important caveats:
  - Appraisers have to be using the same home appraisal checklist
  - This model was designed specifically for the city of Ames, Iowa.