# Predicting Real Estate Prices:
## Las Vegas, Nevada

Springboard Data Science - Career Track
Capstone Two - Final Presentation
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# Background

Problem:

Can listing price be predicted from the real estate data available on Redfin.com?

What are the most important features when determining listing price for a home in the Las Vegas area?

# Data Collection



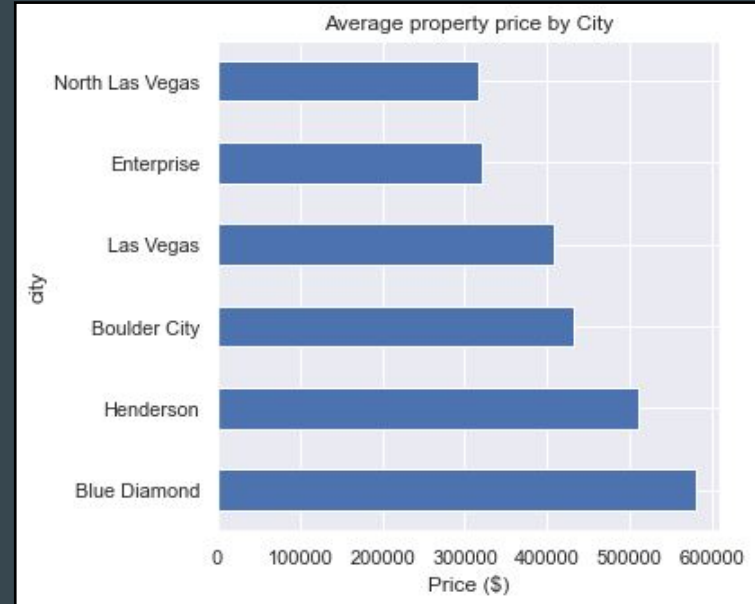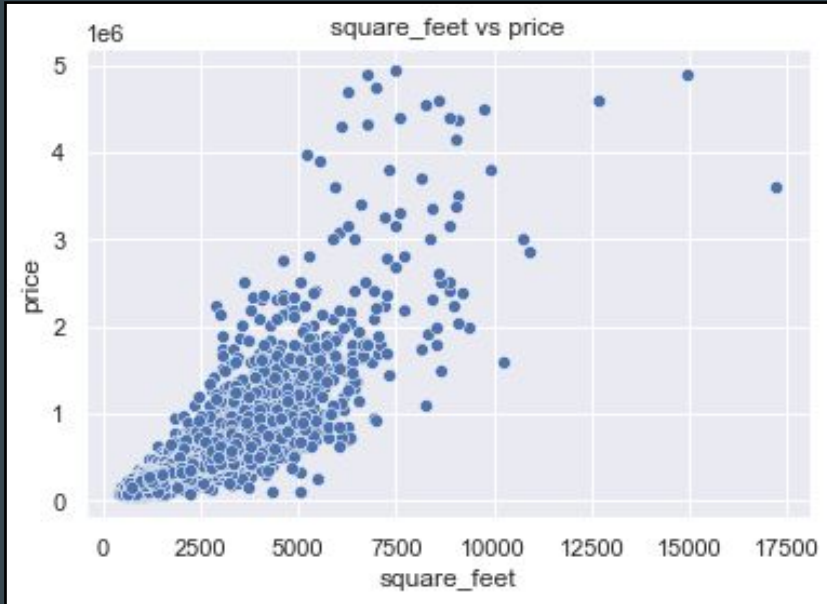Redfin search criteria (download constraint):

- Zipcode
- Property type
- Sold in 3 month time period (Feb - April 2021)

Features:

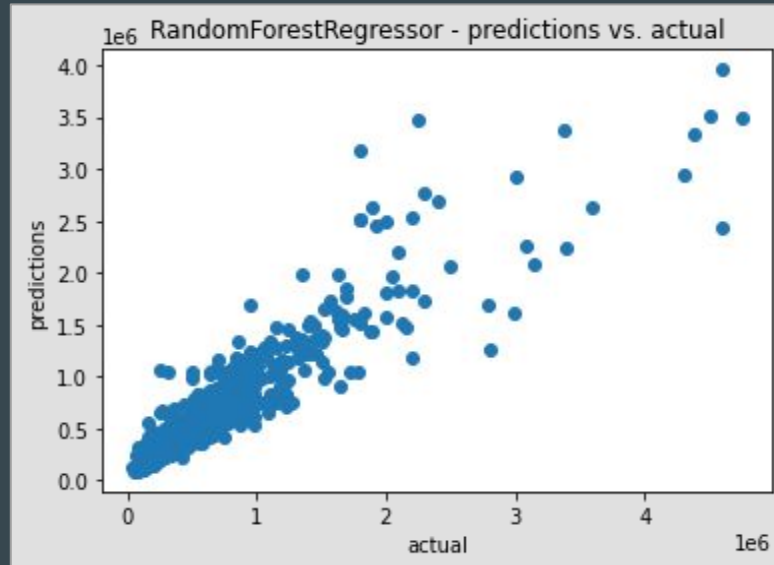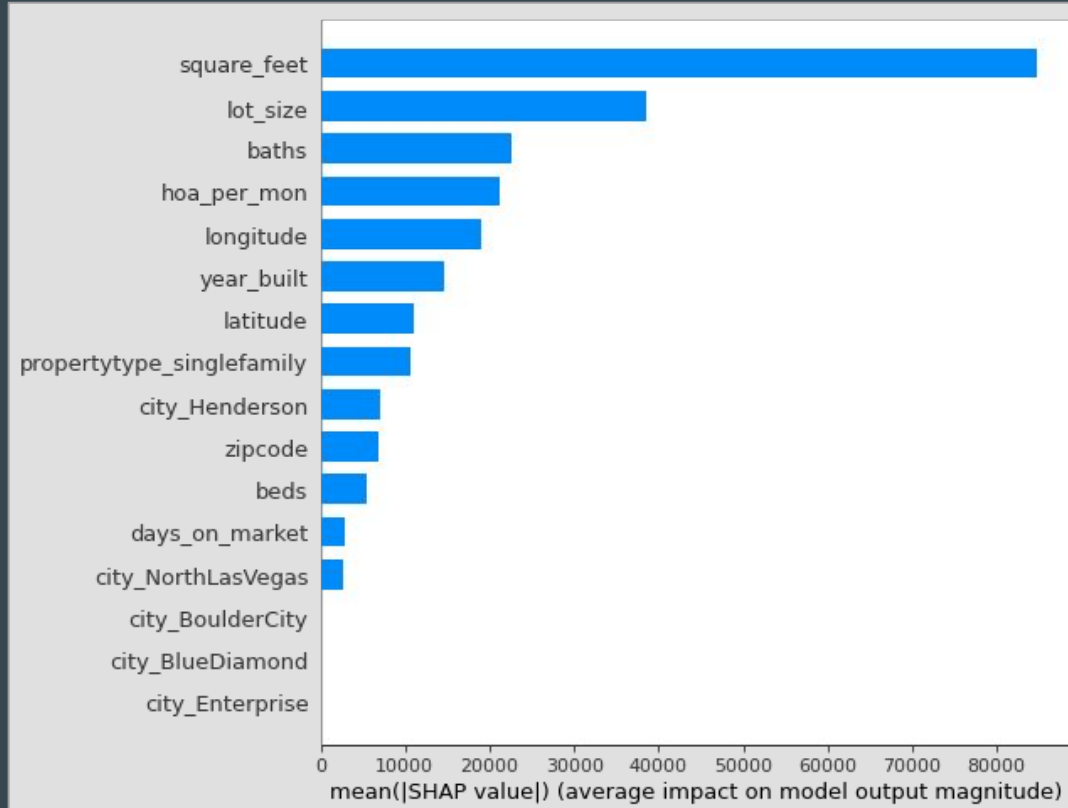| Address | Beds | Latitude |
|---|---|---|
| City | Baths | Longitude |
| Zipcode | Square Feet | Price per Square Foot |
| Price | Lot Size | HOA per month |
| Days on Market | Year Built | Property Type |

# Exploratory Data Analysis

# Model - Testing

| Models (default - no tuning) | R2 score (training data) | R2 score (test data) |
|---|---|---|
| LinearRegression | 0.735 | 0.748 |
| RandomForestRegressor | 0.979 | 0.875 |
| GradientBoostingRegressor | 0.932 | 0.863 |
| AdaBoostRegressor | 0.483 | 0.464 |
| XGBRegressor | 0.991 | 0.873 |

# Model - Selection

| Model (after tuning) | Best Parameters | R2 Score | MAE |
|---|---|---|---|
| RandomForestRegressor | max_depth = 4<br>max_features = log2<br>n_estimators = 100 | 0.874 | 49339.39 |

# Model - Feature Importance

# Future Recommendations/Conclusion

Improvements:

- Additional features
- Expanded dataset

# Questions