AMES HOUSING DATA REGRESSION CHALLENGE

METHODOLOGY

- Define the Problem
- Gather Data
- Explore Data
- Model the Data
- Evaluate Model
- Answer Problem or Next Steps

GOALS

Create a regression model based on the Ames Housing Dataset

This model will predict the price of a house at sale

AMES HOUSING DATA

THE DETAILS

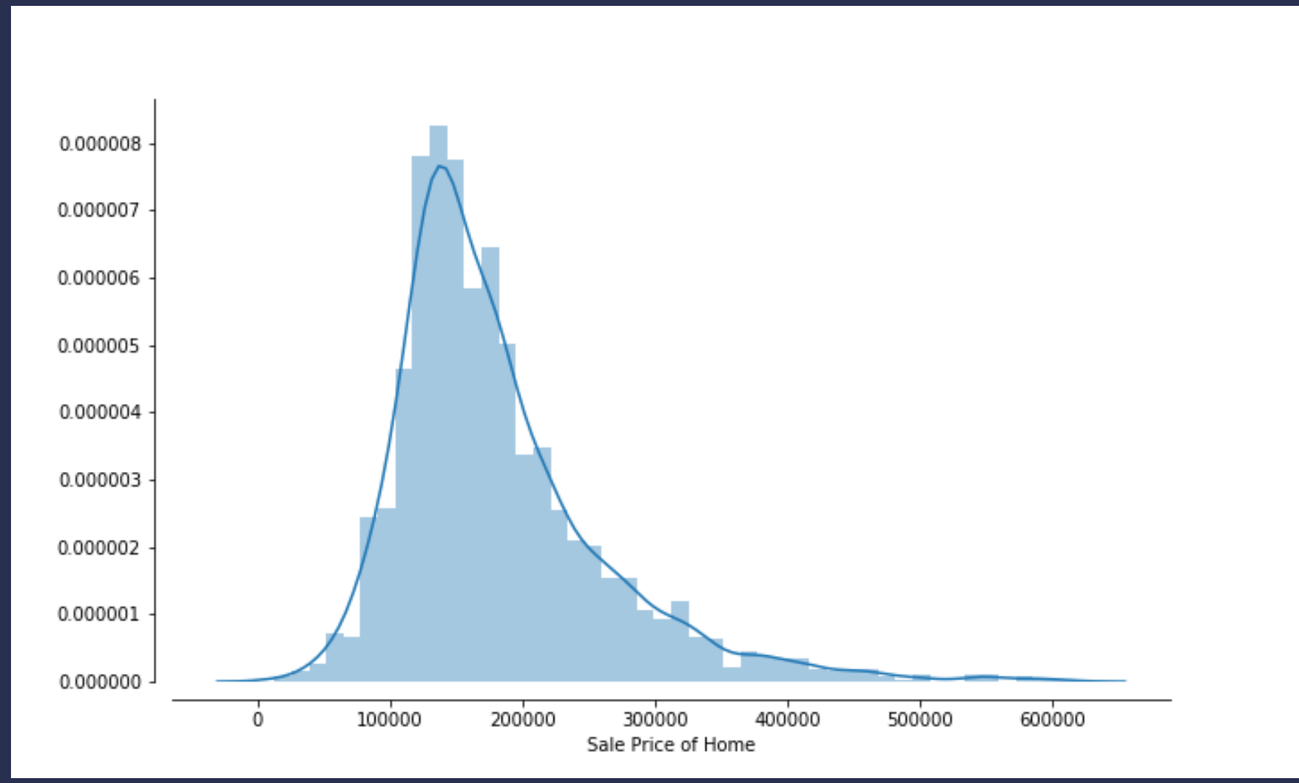
Sale of individual residential property in Ames, Iowa from 2006 to 2010.

- 23 nominal
- 23 ordinal
- 14 discrete
- 20 continuous

GETTING INTO THE WEEDS

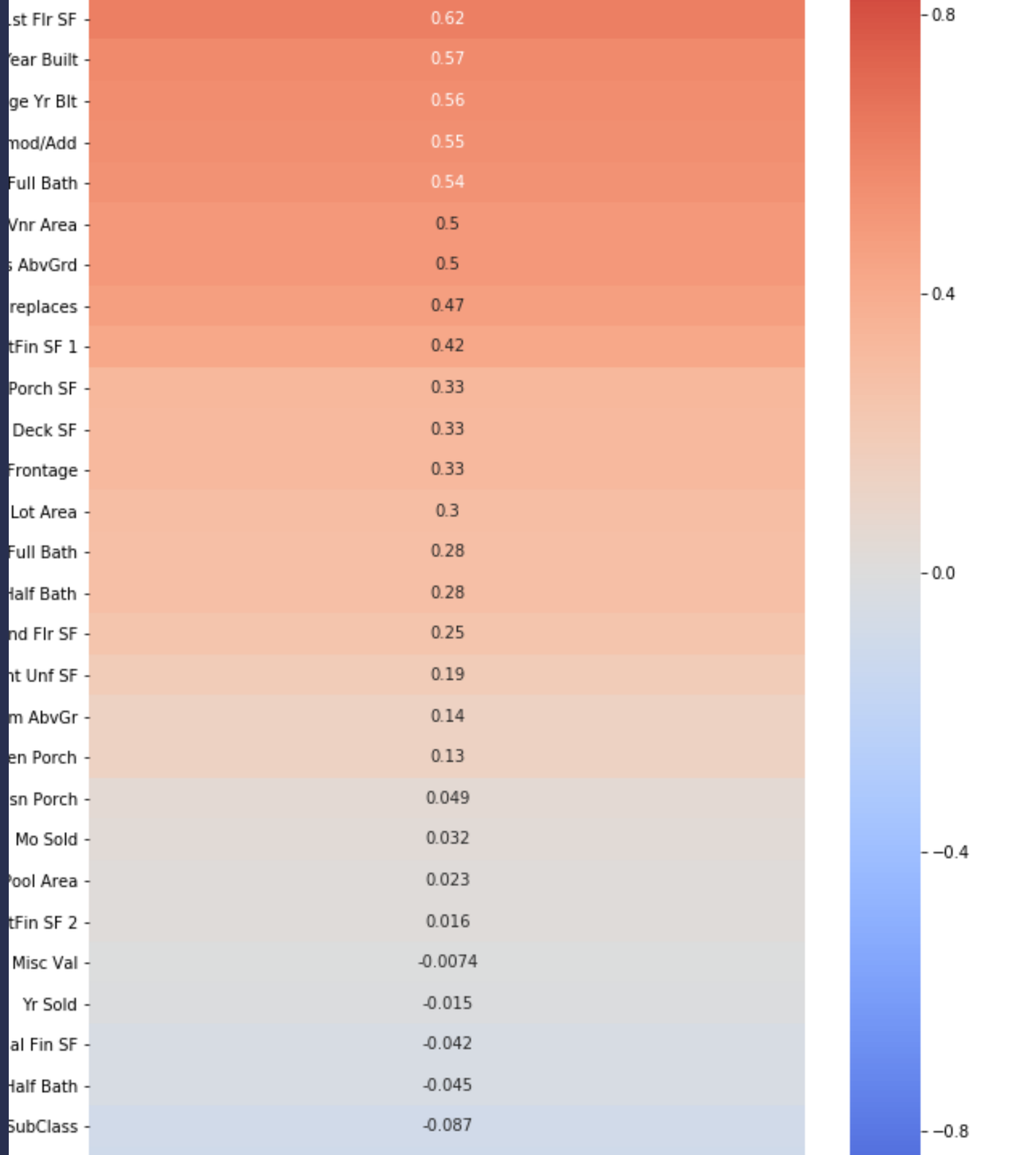
Price Histogram

- Skew in price
- Using just a linear regression will not suffice



MORE WEEDS

Correlation Stack
- Several features that show significant correlation to be considered
- Gives reason for adding interaction terms



REGRESSION

ELASTIC NET

+ For case of high dimensionality
+ Multicollinearity among the variables in the data set

RESULTS

Not Great...

First run - 105 out of 106 on Leaderboard

MSE: 105 to 35

NEXT STEPS

Add Interaction Terms

Add dummy columns for categorical features

Different Regression Types

THANK YOU

Questions