

Homeowners Association: Home Value

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PROBLEM STATEMENT

- Negligent home owners are driving average home prices down.
- Homeowners Association (HoA) is looking to see how they can mitigate value loss
- We've identified this as: How can HoA improve their Home Value, despite local homes going down.
- Data used from Kaggle Ames Housing Competition

Quick Snapshot

Our model: It did not score well in price prediction, simply put.

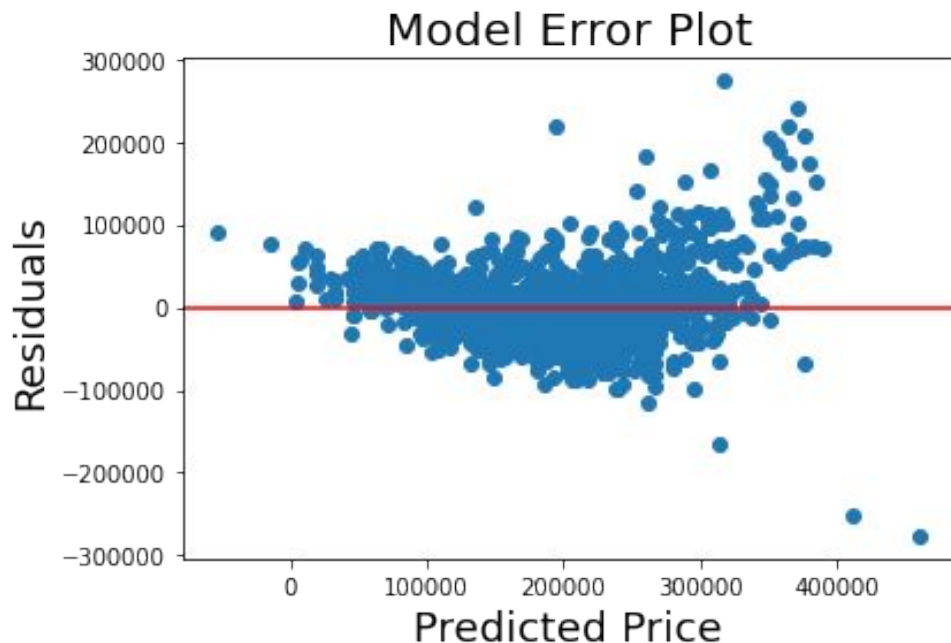
Model Scoring Goals:

- R2 at least **0.85** in with low variance
- RMSE as close to **0** as possible

Model Score:

- R2 [most consistent]: **0.758**
- RMSE: **38611.4405**

We can use our findings from cleaning this data to guide our insight.



Feature Selection and Grouping

Categorical

Street, Alley, Lot Shape, Land Contour, Utilities,
Neighborhood

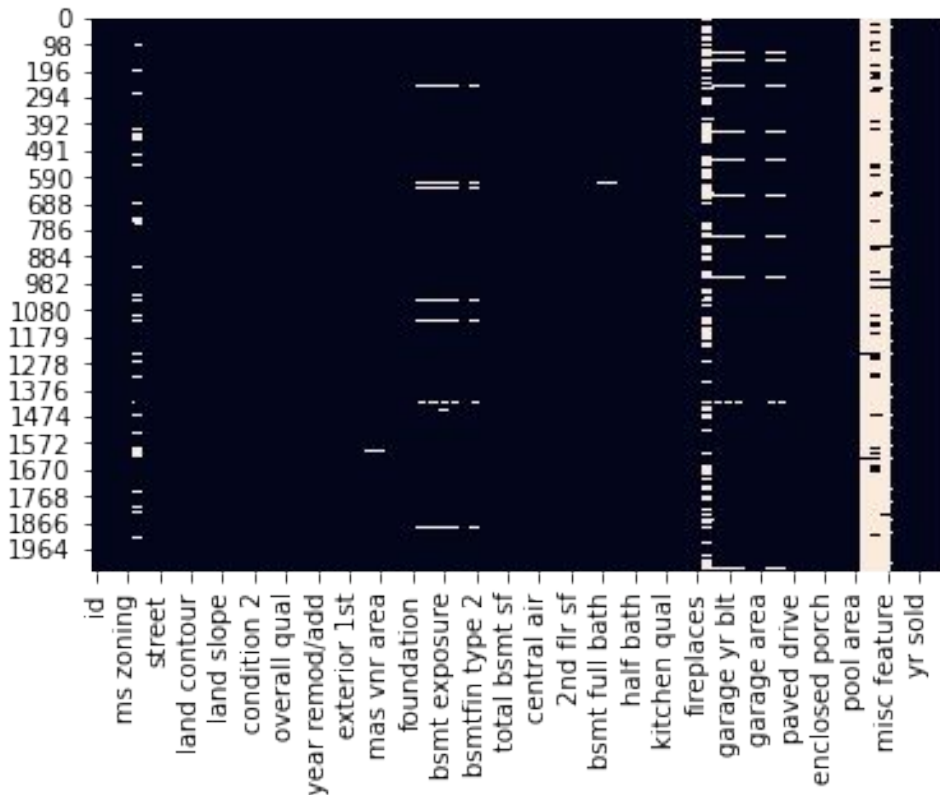
Numerical

Overall Quality, Basement Finish, Bath count, Room
type counts

Scalable

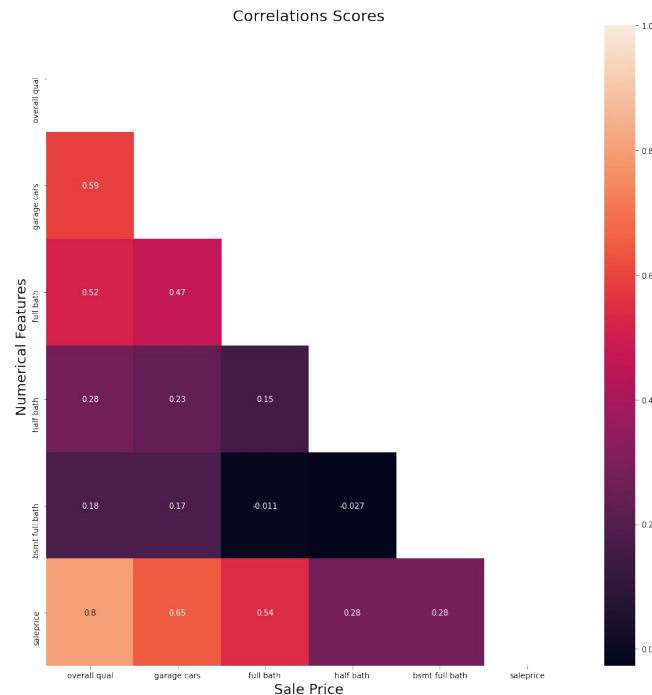
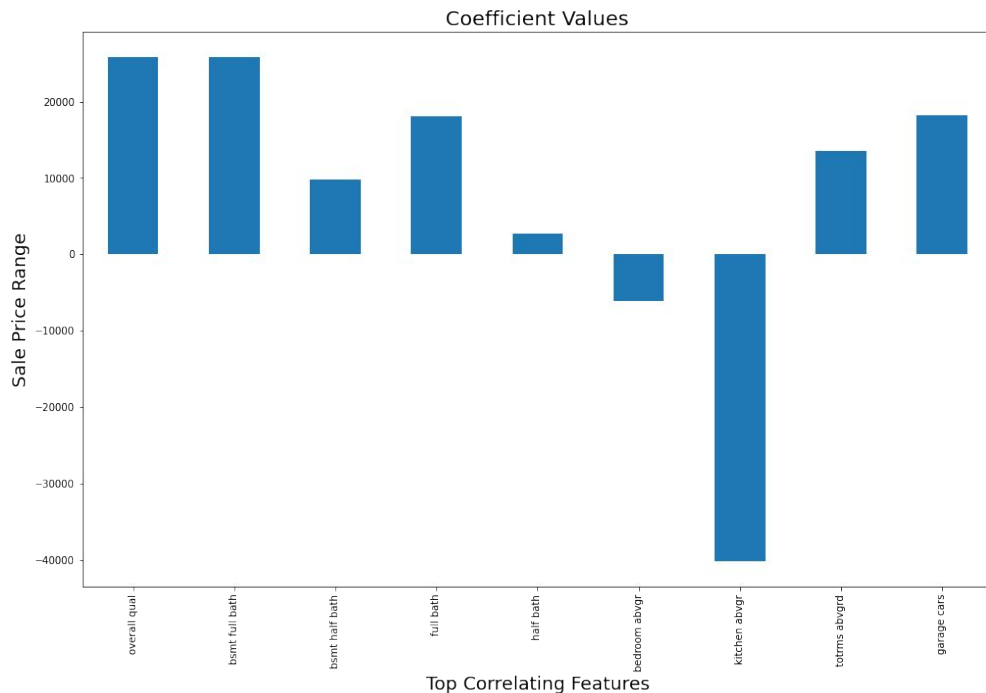
Lot Area, Basement Finished Area, Living Areas, Garage
Areas, Porch, Wood decks

- These are measured in Square feet as confirmed
in Kaggle Data Dictionary



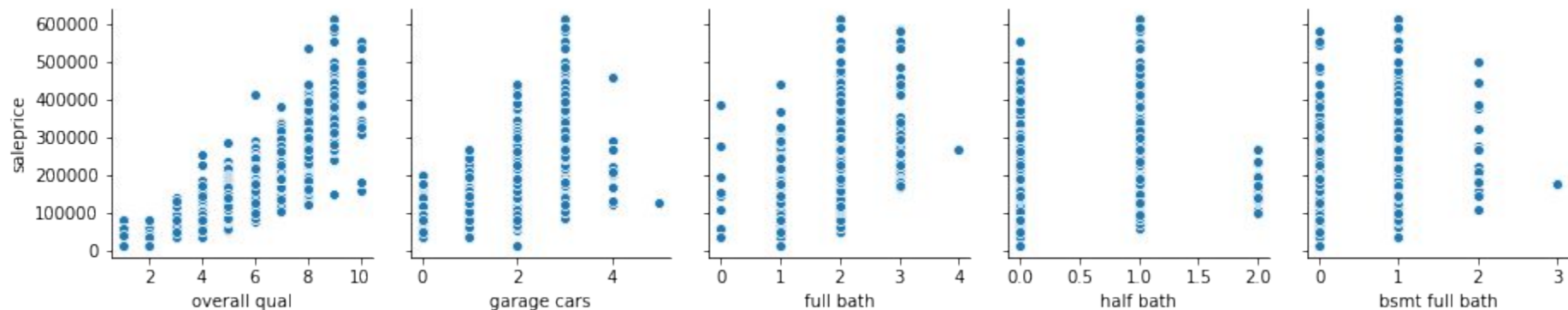
04/07

A Closer Look at Our Model



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Additional Highlights and Takeaways - Top Correlated Numerical Categories



WHAT CAN WE DO FOR OURSELVES?

Home-Improvement

- Specialized Rooms
- Upgrade Fittings

Up-Regulations

- Architecturally approved regulations fall within HoA reach depending on city district
- Windows, driveways, garages

Dig deeper

- House prices are known to fluctuate around trends in home installments
- Externally, we can find these trends and implement them in both home upgrades and regulations

Remodel

- There were 70 features total
- Aligning the model more with true price makes for tighter budgetary cuts and decisions

Conclusions

- Home Improvement Projects
- Push for Window, Garage, and Driveway regulations
- Consult another region's data set

- ❑ [Source: Features to Boost Home Value](<https://www.realtor.com/news/trends/top-15-home-features-to-boost-your-homes-value-and-sell-it-faster/>)
- ❑ [Source: Features Buyers Want](<https://www.kiplinger.com/slideshow/real-estate/T010-S001-home-features-today-s-buyers-want-most/index.html>)
- ❑ [Source: Remodeling Costs vs Sale](<https://www.remodeling.hw.net/cost-vs-value/2019/west-north-central/>)
- ❑ [Source: HoA Window Regulations](<https://ringerwindows.com/residential-windows-hoa-programs/>)
- ❑ [Source: Typical Home Owner](<https://www.zillow.com/report/2017/homeowners/typical-american-homeowner/>)