Property Attributes and Its Effects On Home Valuation
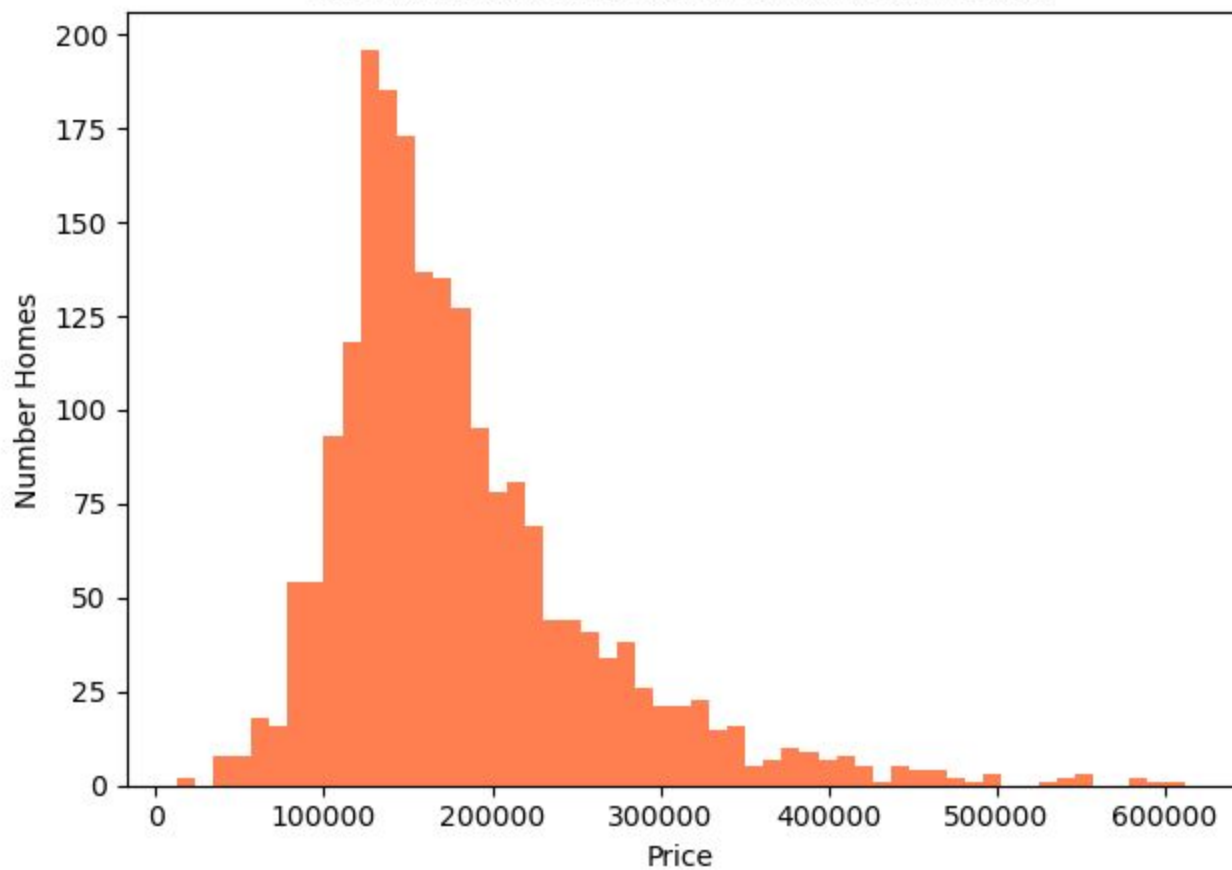
Jason Lu

Background

- Housing prices are always fluctuating
- Traditionally done by an appraiser
  - Relatively subjective
- Seen as comprehensive
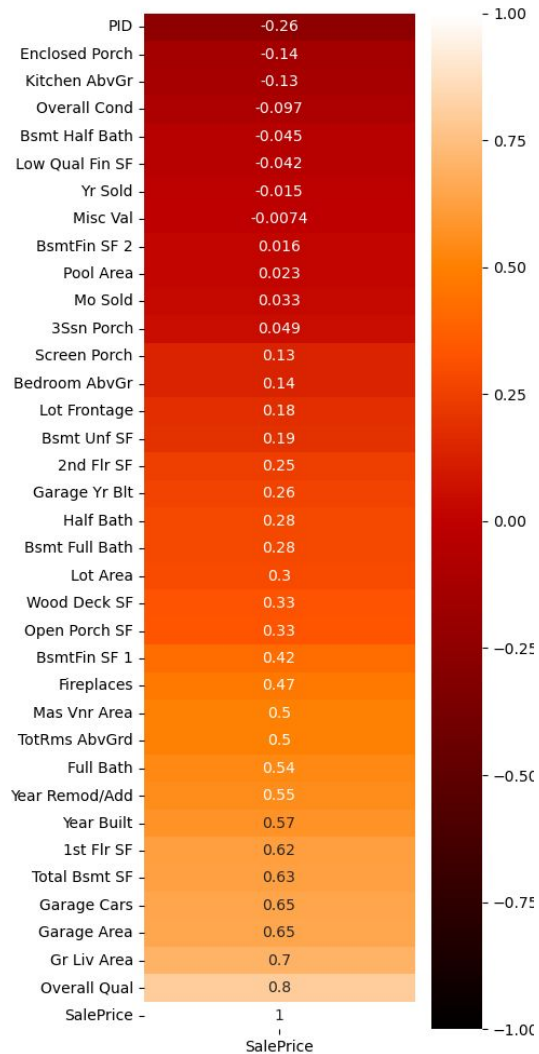 - All features equally count
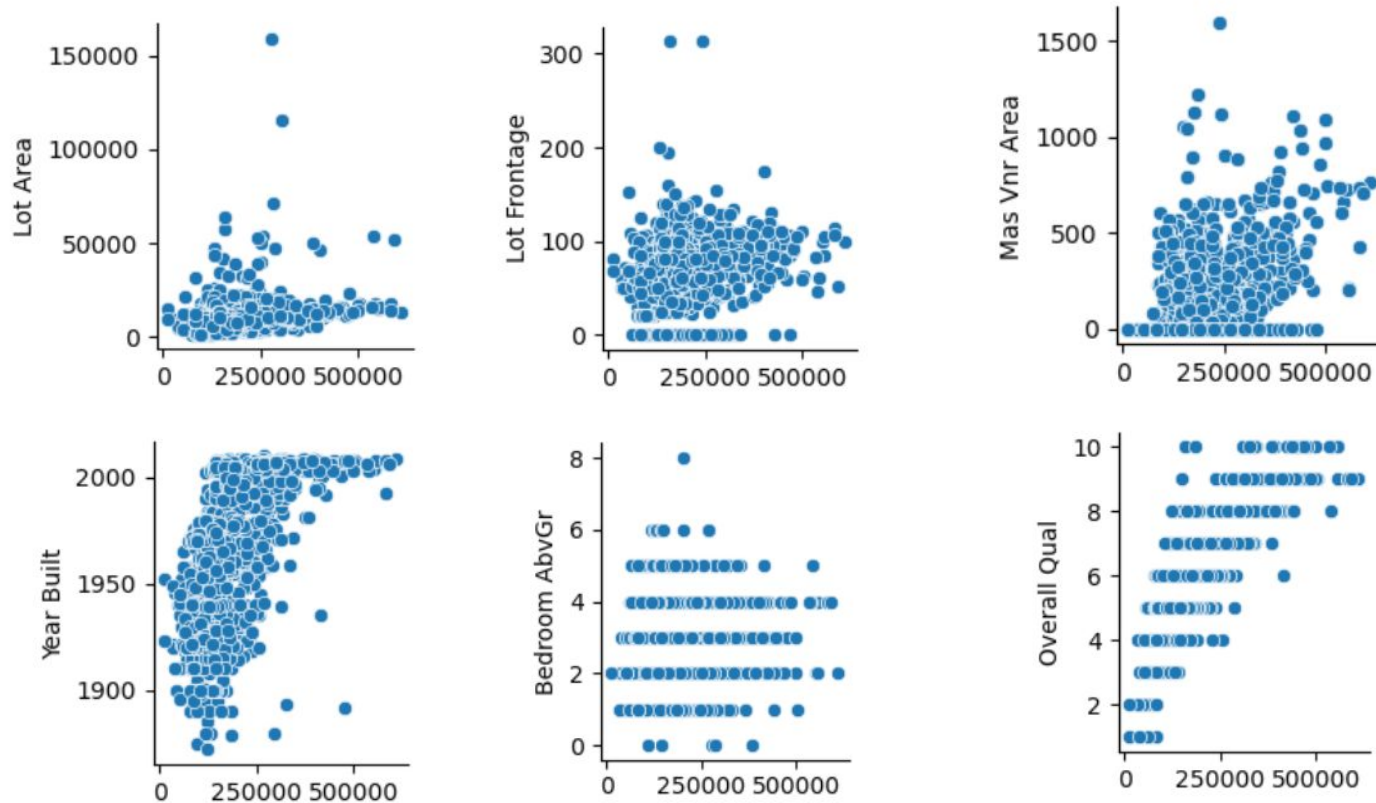
Project Purpose

- Build a model to predict property values
  - How certain attributes play a bigger role
- Increase company credibility and customer satisfaction
- Help increase profits!!

Distribution of Sale Prices of Homes in Ames

	SalePrice
PID	-0.26
Enclosed Porch	-0.14
Kitchen AbvGr	-0.13
Overall Cond	-0.097
Bsmt Half Bath	-0.045
Low Qual Fin SF	-0.042
Yr Sold	-0.015
Misc Val	-0.0074
BsmtFin SF 2	0.016
Pool Area	0.023
Mo Sold	0.033
3Ssn Porch	0.049
Screen Porch	0.13
Bedroom AbvGr	0.14
Lot Frontage	0.18
Bsmt Unf SF	0.19
2nd Flr SF	0.25
Garage Yr Blt	0.26
Half Bath	0.28
Bsmt Full Bath	0.28
Lot Area	0.3
Wood Deck SF	0.33
Open Porch SF	0.33
BsmtFin SF 1	0.42
Fireplaces	0.47
Mas Vnr Area	0.5
TotRms AbvGrd	0.5
Full Bath	0.54
Year Remod/Add	0.55
Year Built	0.57
1st Flr SF	0.62
Total Bsmt SF	0.63
Garage Cars	0.65
Garage Area	0.65
Gr Liv Area	0.7
Overall Qual	0.8
SalePrice	1

Relationship between Features and Sale Price

Conclusion

- Best predictors
  - Total Sq. Ft, Garage Size & Features
- Not as important
  - House Age, Interior Finishing

Thanks for listening!