

Gap The Price!

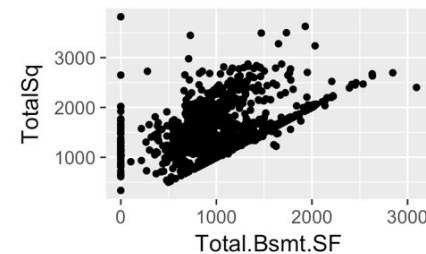
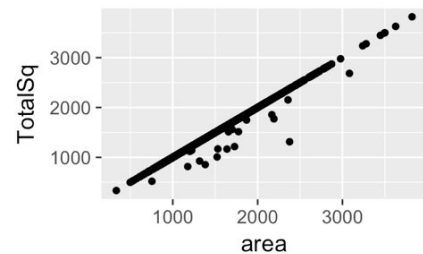
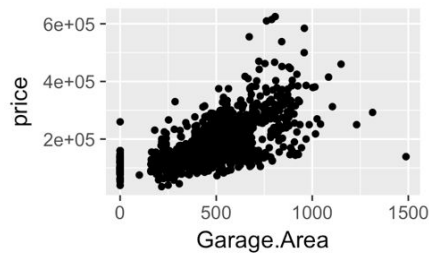
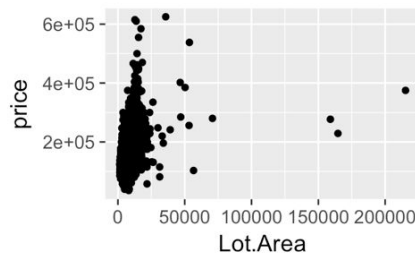
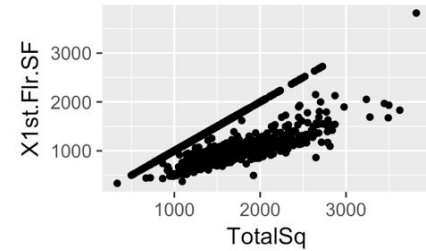
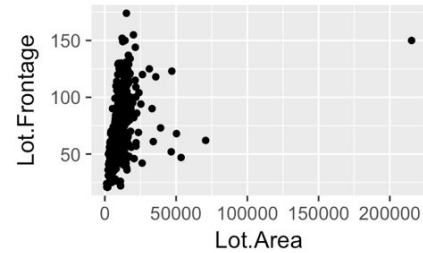
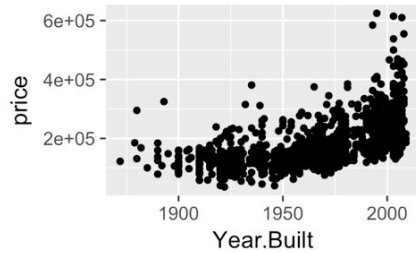
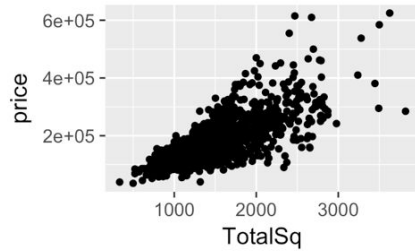
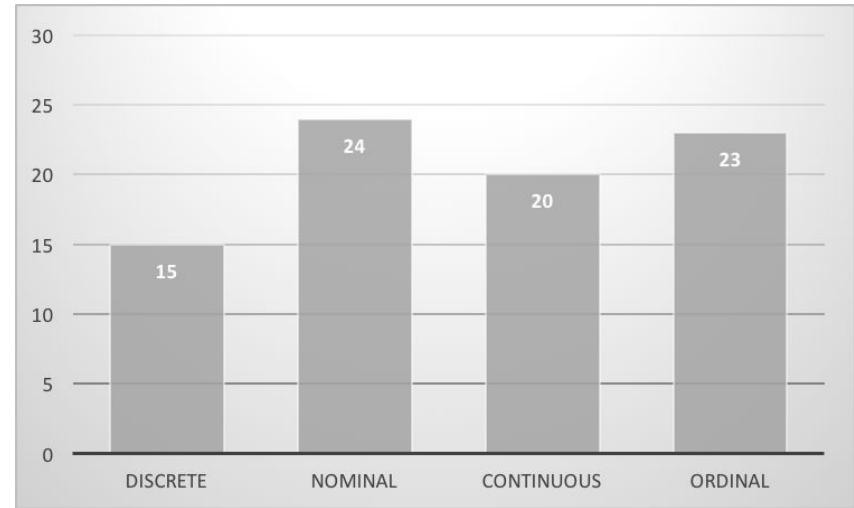
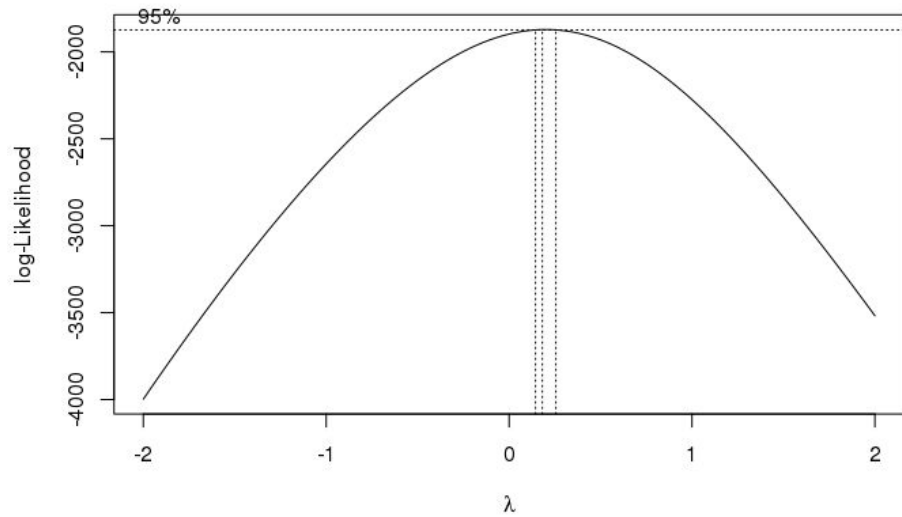
STA-521 Final Presentation

Team - Big 4

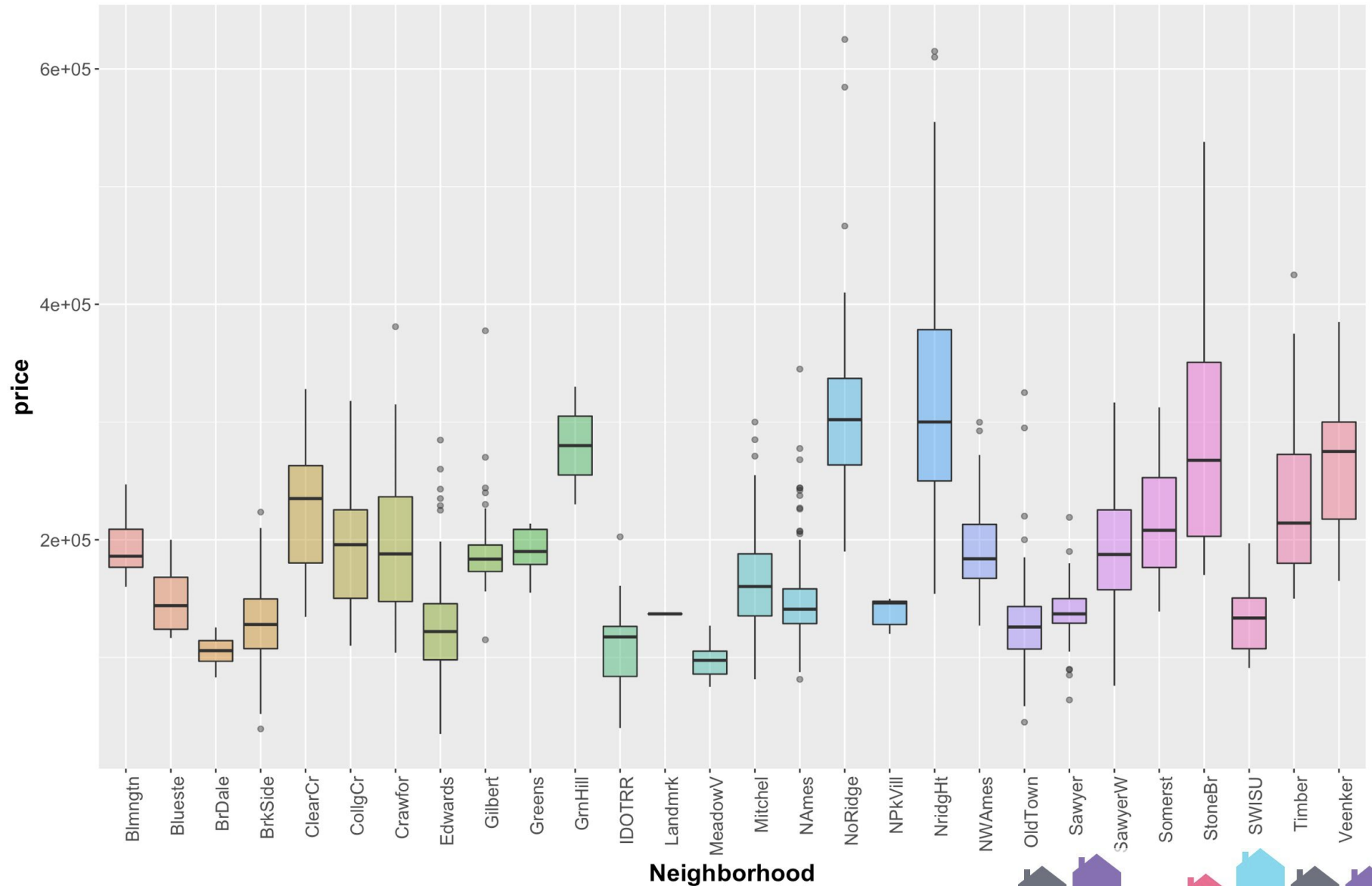
Xichu Liu
Zhanhan Yu
Shaoji Li
Yasong Zhou

May 1st, 2017

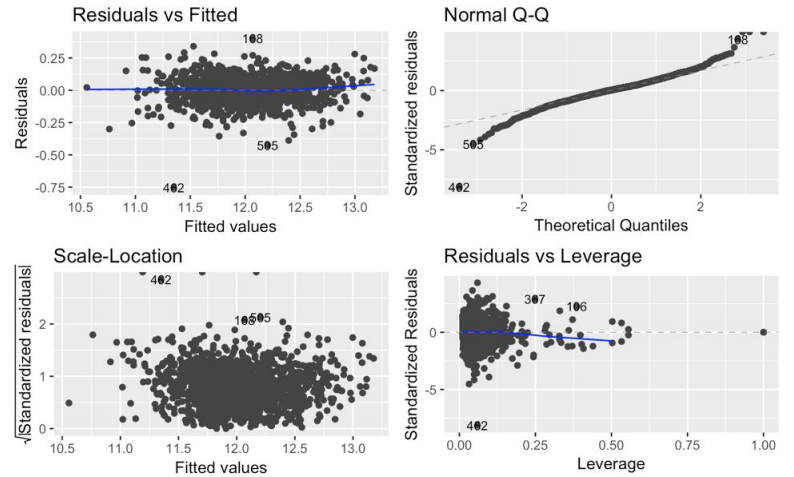
Data Overview



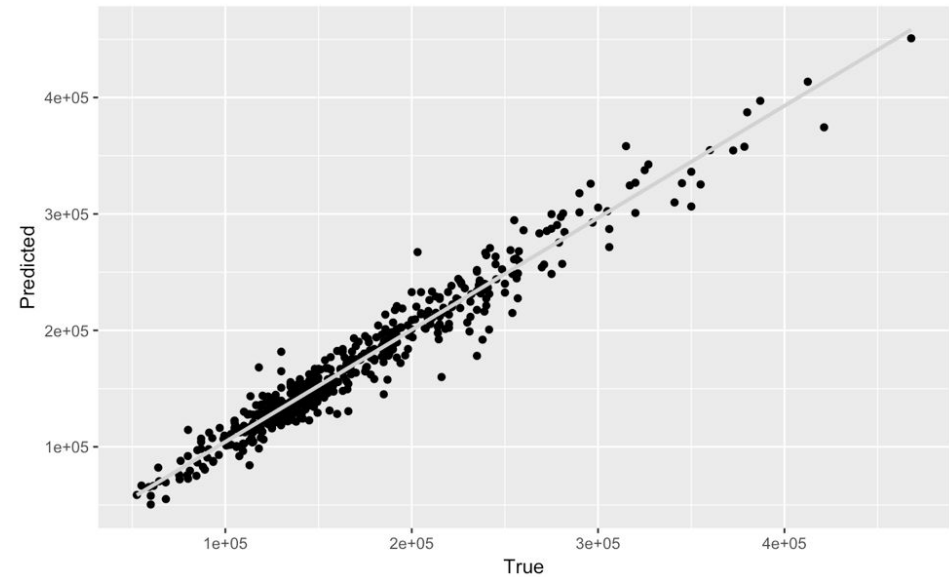
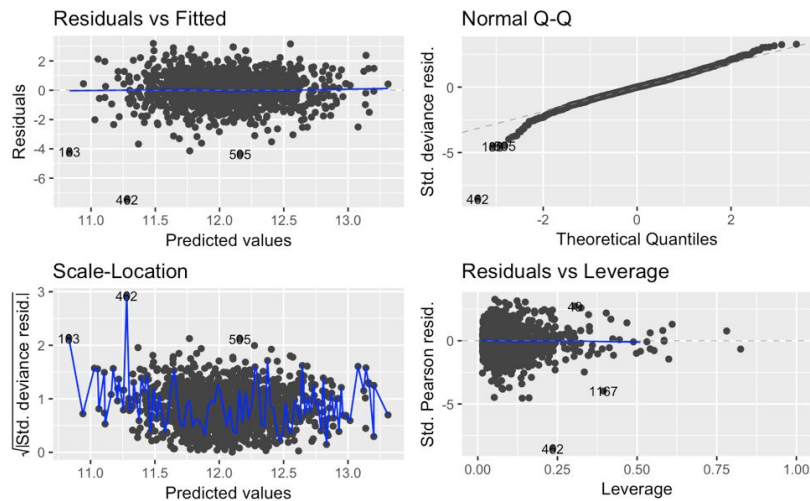
Price By Neighborhoods



Final Model - Negative Binomial GLM



RESULT	VALUE
RMSE	14460
Coverage	0.434
Bias	1598
Maximum Deviation	64110
Mean Abs Deviation	10756



Insights and Recommendations

Absolute Gain v.s. Return Rate

PID	Absolute Gain
528166060	91452.71
909475300	71241.13
535125010	64707.74
528118090	64331.41
528365070	62269.76
533352170	61483.6
528142020	61119.67
527225035	52309.85
533125120	51783.95
909475040	51704.67

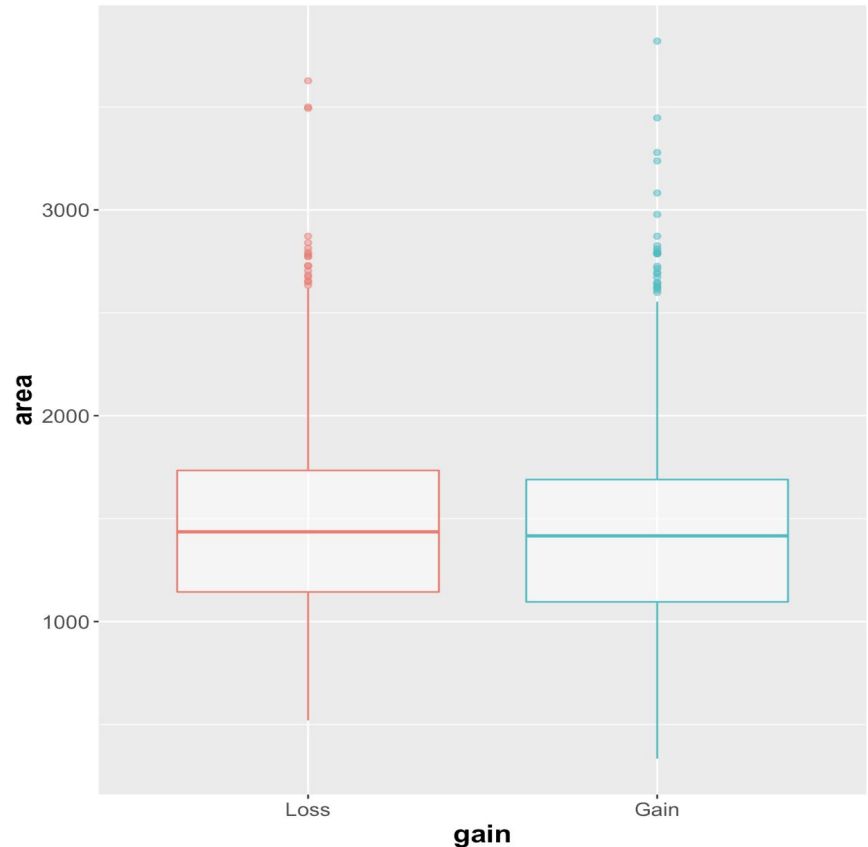
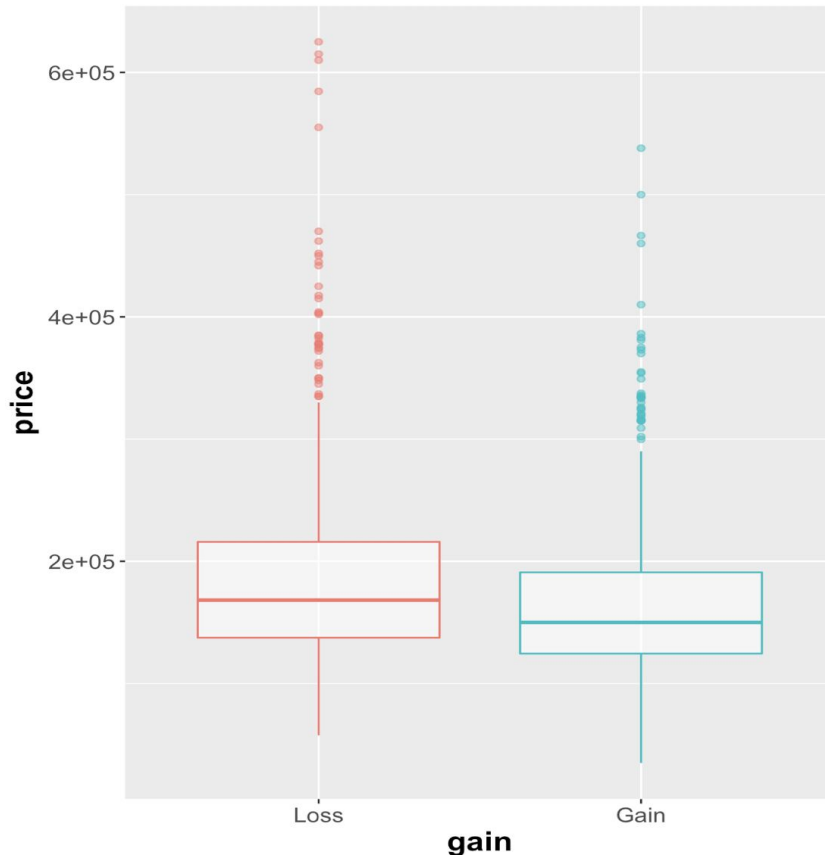
PID	Return Rate
911102170	0.9698016
909101330	0.4751488
533352170	0.4711387
902302150	0.4546893
904351240	0.3823354
535125010	0.3594875
908275110	0.3487548
902205010	0.345418
909281030	0.3289674
909475300	0.320906

- The two groups of ten only share **3 common PID out of 10**
- We should concentrate more on buying houses with higher return rate, rather than absolute gain



Insights and Recommendations

What Does the Profitable Houses Look Like?



- Based on t-test, there is significant difference in **price** between profitable houses and loss-making houses, and no significant difference in **area**
- We recommend to buy cheaper houses, given no more information on other variables (e.g.,) of houses

