An Examination of the Housing Habits of the Human Aliens

New Data from King’s County

- Agents in the field have acquired data on the artificial habitats that the humans build for themselves in a place called King’s County.
  - note: there are no Kings in this county, nor is it ruled by one

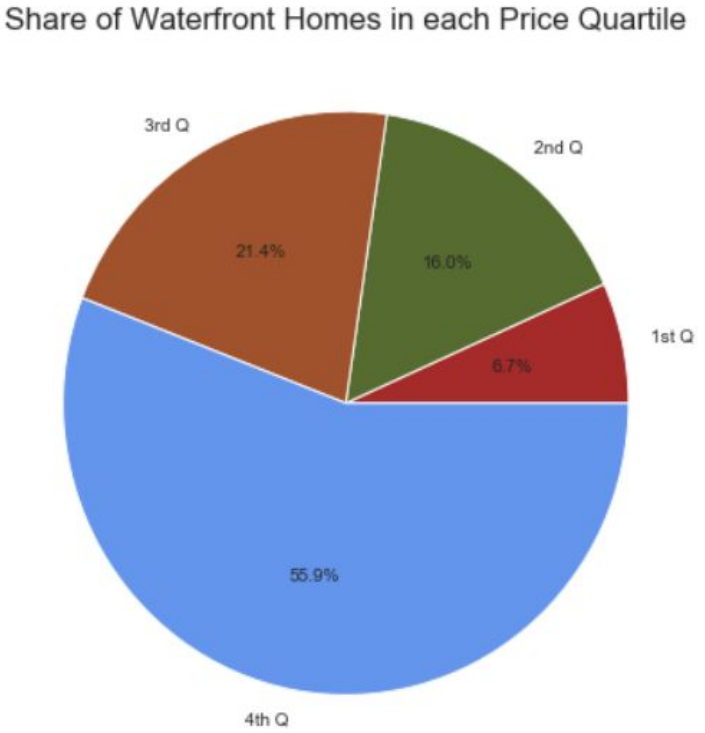
- The number of financial tokens the humans are willing to spend for a dwelling can tell us what kinds of habitats they value as a species

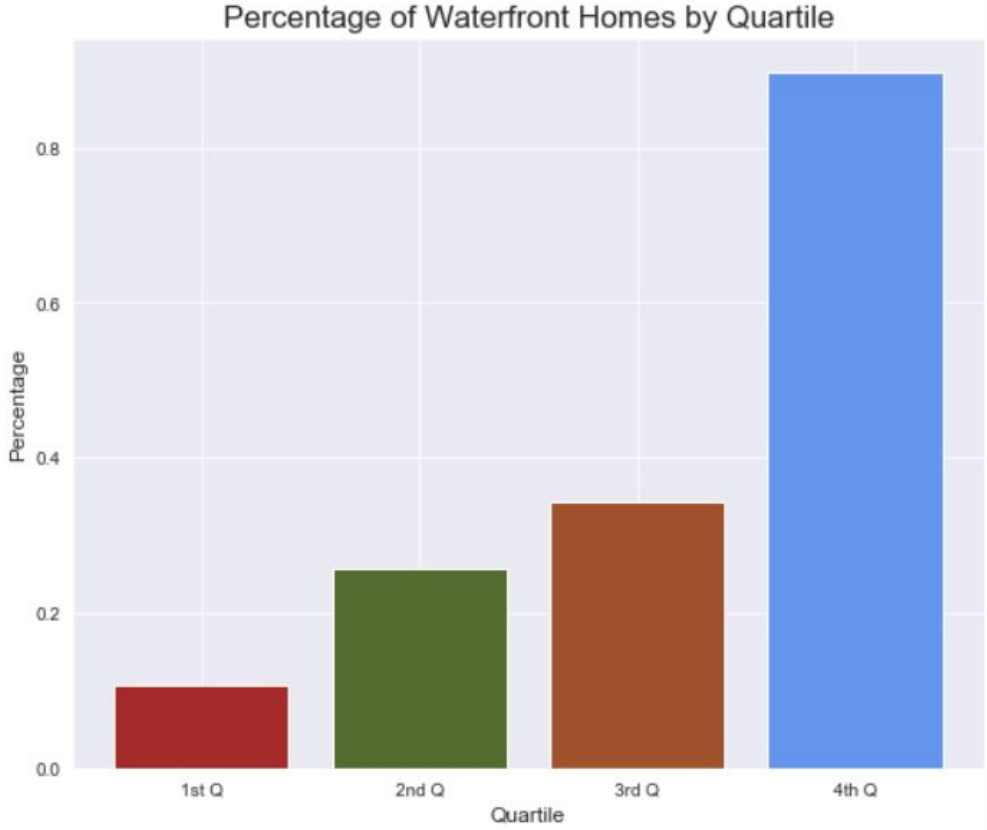
- This data is thus an indirect guide to the values of human beings, and can help us to better place agents in the future

Primary Research Questions

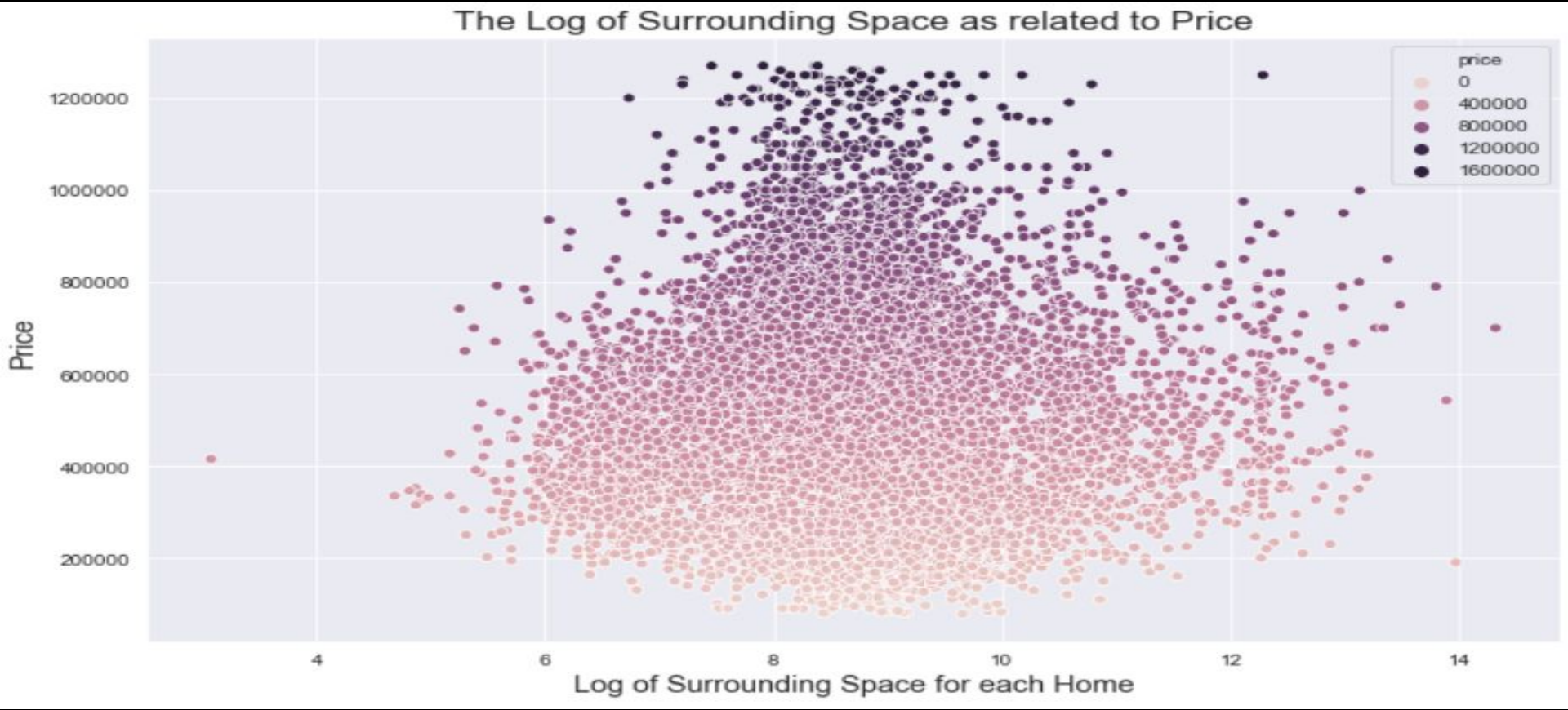
1. Do humans prefer to live near water or to live more inland where it is safer?
2. Do humans value having a lot of empty land around them?
3. Do humans like to live high above the ground?
4. Do humans enjoy living deep below the ground?
5. Do humans use their eyes for pleasure or only survival?

1. Do Humans Like to Live Near the Water?

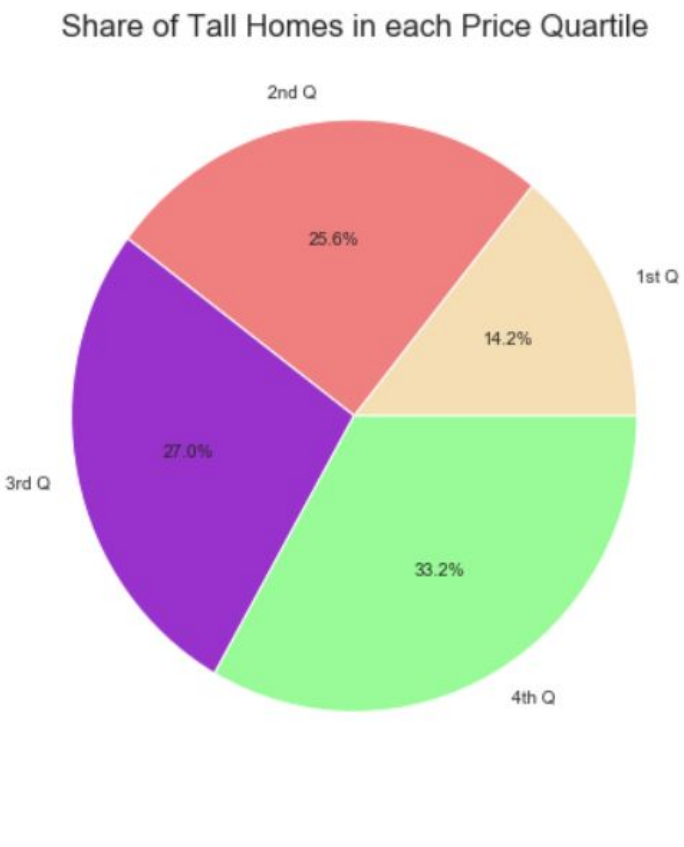


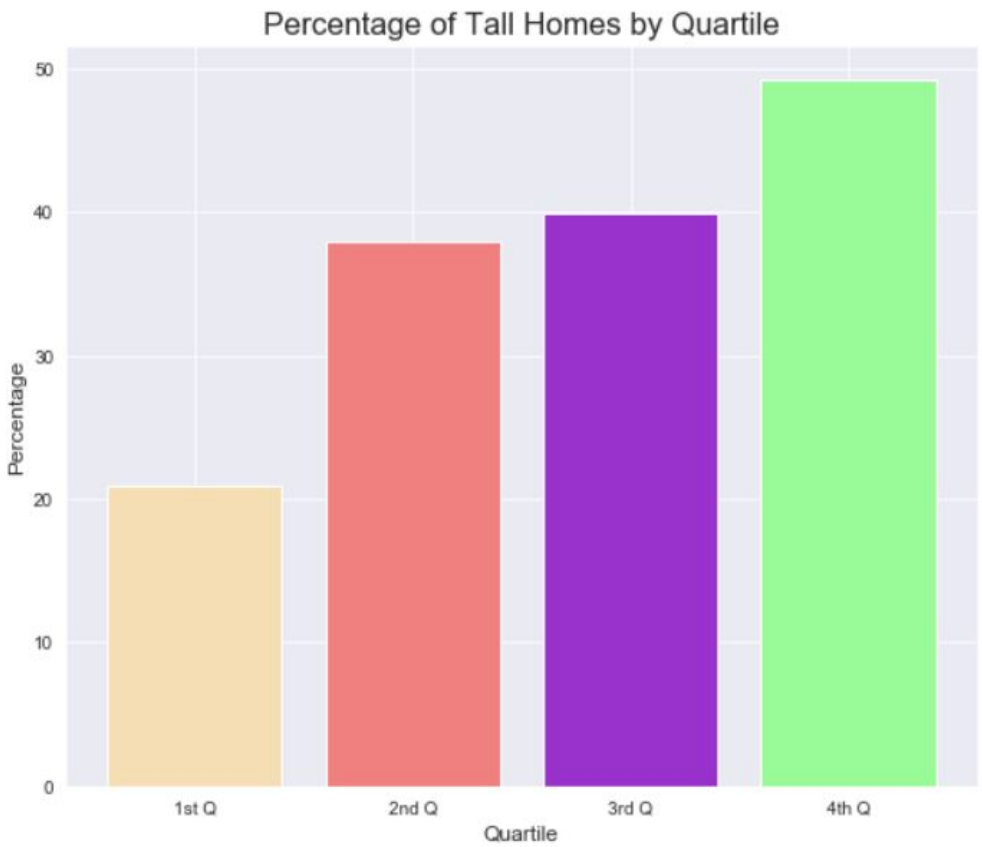


2. Do Humans Value Empty Surrounding Space?

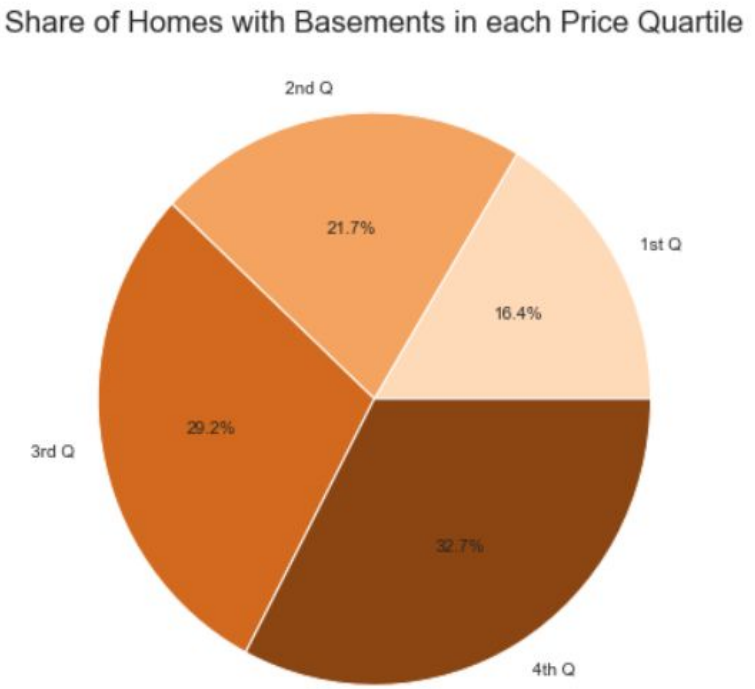


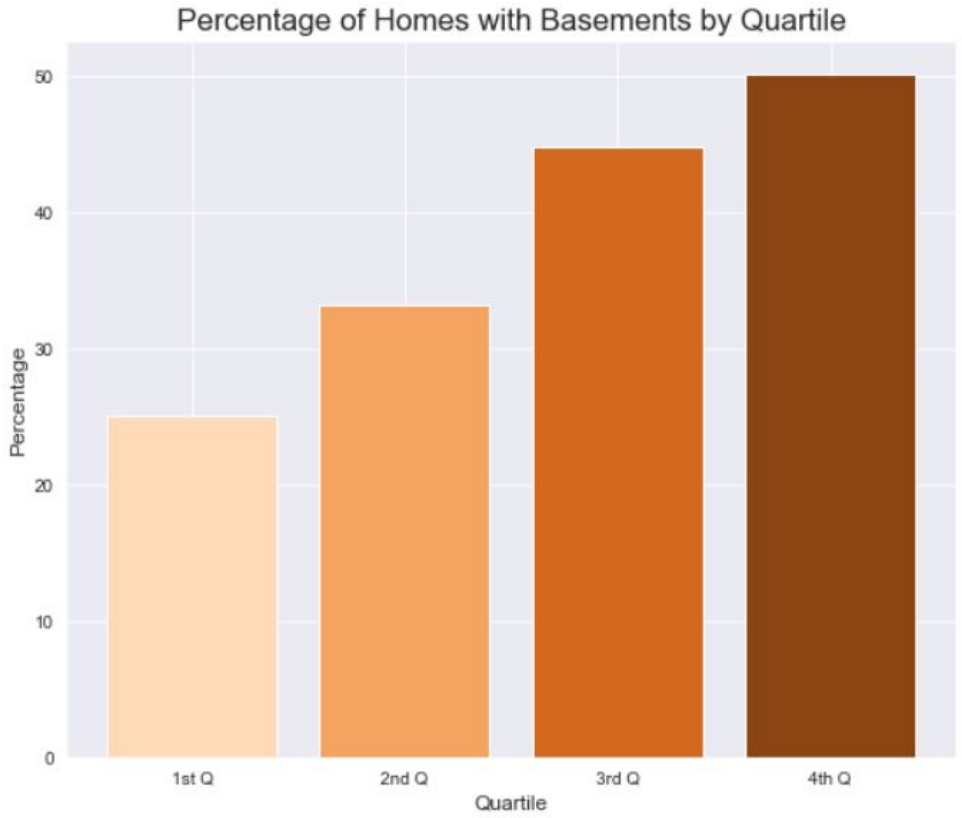
3. Do Humans Like to be High?



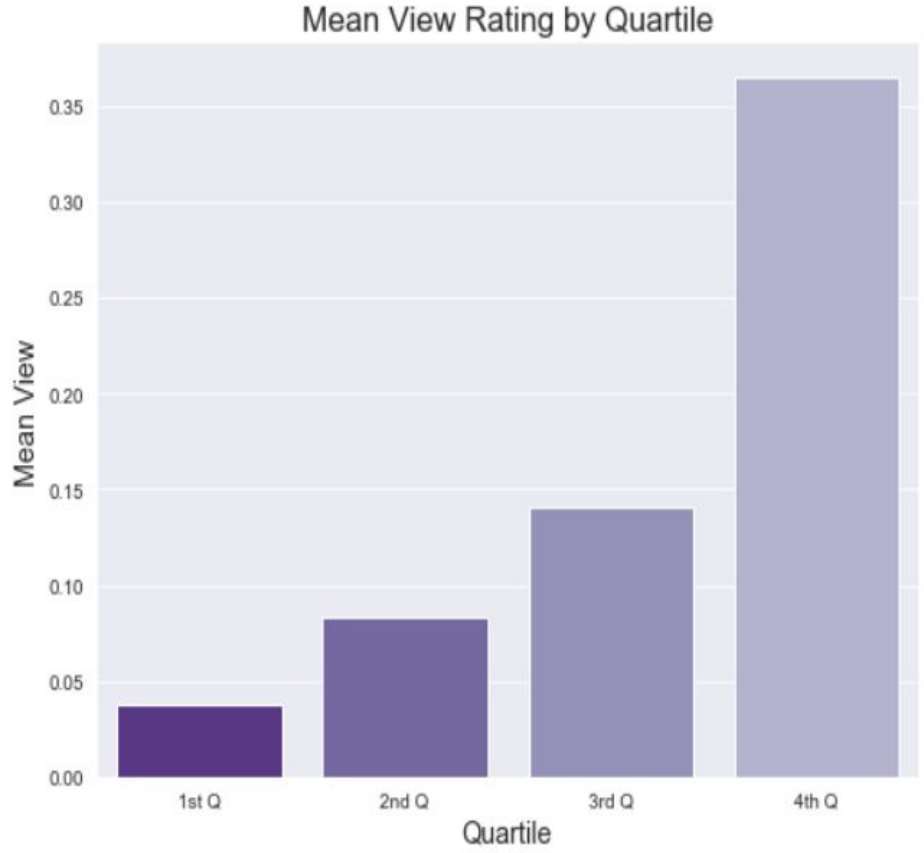


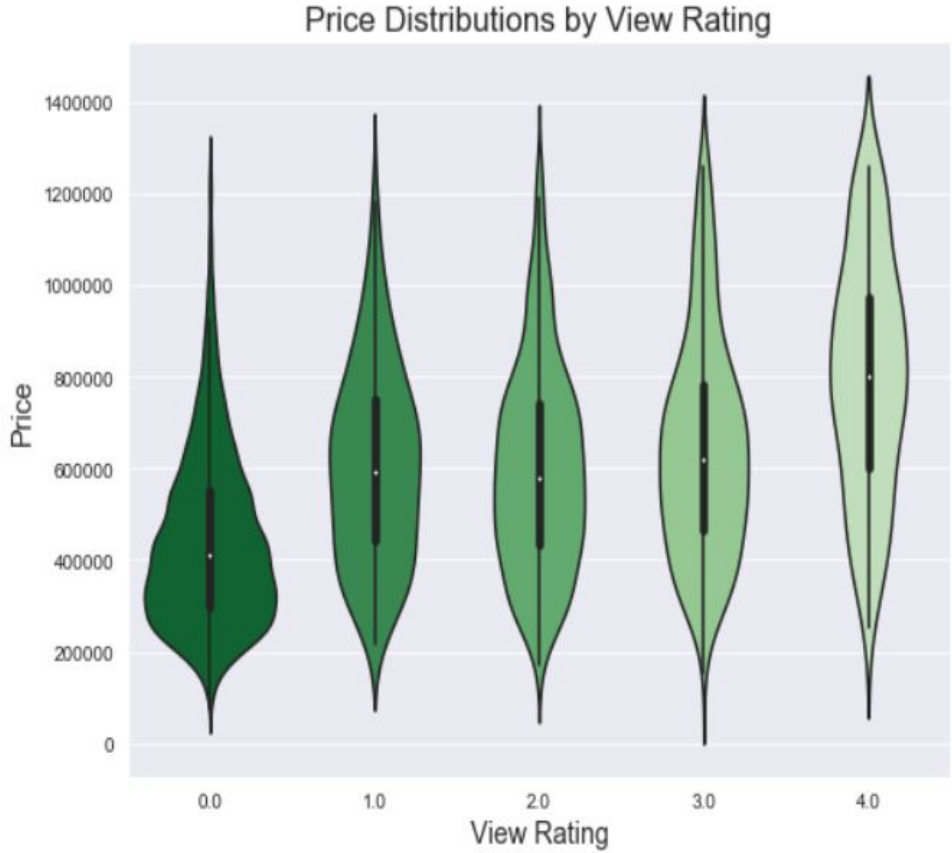
4. Do Humans Like to be Deep in the Ground?





5. Do Humans Derive Pleasure from their Eyes?





Summary of Preliminary Findings

1. Humans love to be near the water, despite the dangers associated with it

2. There is no connection between the empty space on a lot and the price of a habitat

3. Humans value dwellings that give them the opportunity to be high above the ground

4. Humans also like to go below ground, presumably as a safe place to sleep

5. Humans do in fact derive pleasure from taking in specific patterns of radiation through their eyes.

Building a Multiple Regression Model

We take the previous features, as well as the sqftage, to build a regression model

Dep. Variable:	price_log	R-squared (uncentered):	0.998

	coef	std err	t	P>|t|	[0.025	0.975]
waterfront	0.2409	0.071	3.407	0.001	0.102	0.379
sqft_living_log	1.7559	0.001	2058.786	0.000	1.754	1.758
has_basement	-0.2015	0.008	-24.358	0.000	-0.218	-0.185
high_floors	-0.3017	0.008	-36.393	0.000	-0.318	-0.285
view_1-3	0.0652	0.016	4.185	0.000	0.035	0.096
view_4.0	0.2413	0.053	4.549	0.000	0.137	0.345

Omnibus:	301.787	Durbin-Watson:	1.987
Prob(Omnibus):	0.000	Jarque-Bera (JB):	315.272
Skew:	0.315	Prob(JB):	3.46e-69
Kurtosis:	2.910	Cond. No.	155.

Recommendations

1. Future agents should be placed in tall locations near water so that they can better attract humans.
    a. Indeed, this to some degree explains Agent Gates' famous effectiveness

2. Agents will need training on simulating/stimulating eye-pleasure in humans.

3. Once we pivot from observing to helping the humans, we should consider aerial bombardment to create craters and thus more water features for them to build houses near.

Future Research

- Look more at the connection between the view rating and a house's placement. What kinds of views do humans enjoy? Views of liquid water, other constructions, or simply of the sky?

- Look more at latitude. This feature seemed promising, and its connection to human housing desires may indicate that humans have some sort of magnetic sense that leads them to prefer certain latitudes over others. Unfortunately it had too much collinearity with other features for us to use it in our final model. Perhaps other kinds of models might be able to make better use of it.

Thank you