# **Data Science**

Module 1 Project

Chelsea Power
March 7, 2019

### Overview of King County, Washington

King County is a county located in the U.S. state of Washington. Based on census data from <u>Open Data Network</u>, in 2015 the population was 2,045,756 million with a college graduation rate of 46.6%. The median earnings for people with a bachelor's degree was \$62,200.

#### The top cities in this county are:







Kent



Bellevue



Sammam...



Renton



Redmond



Kirkland

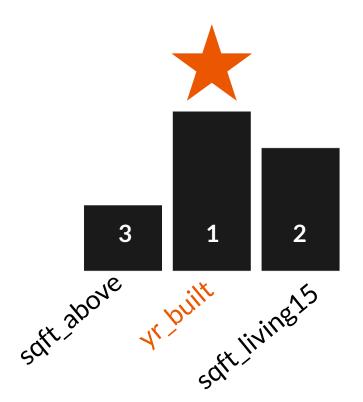
### **King County Housing in 2015**

What factors influence the price of a house in this area?

How does location impact housing?

What factors have little to no influence on the price of a house in this area?

The most influential factors on housing price

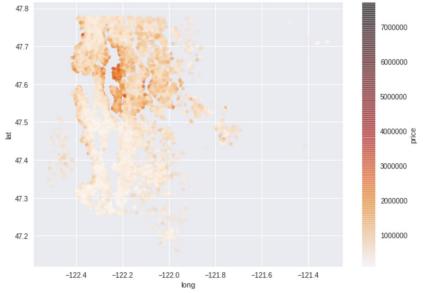


### **Definitions**

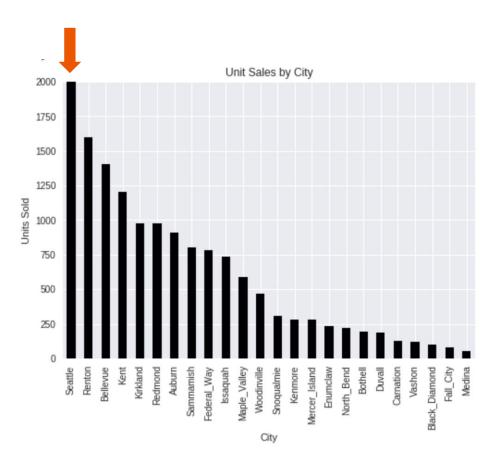
- yr\_built The year the house was initially built
- **sqft\_above** The square footage of the interior housing space that is above ground level
- **sqft\_living15** The square footage of interior housing living space for the nearest 15 neighbors

## How does location impact housing?





How does location impact housing?



The least influential factors on housing price







View

### **Definitions**

- grade An index from 1 to 13, where 133 falls short of building construction and design, 7 has an average level of construction and design and 11-13 have a high quality level of construction and design
- **view** An index from 0 to 4 of how good the view of the property is

#### Conclusion

The most influential variables were selected because they have the most direct impact on price and do not have an influential relationship to each other.

The heatmap price chart and city ranking by sales show how the area impacts the housing price.

The least-influential variables were selected because they have no influential impact to each other and/or do not have a strong/direct impact on price.

### **Next Steps**

Additional analysis can be conducted on the best time of the year / season to buy a house based on the number of sales per zip code.

Since this dataset is from 2015, it would also be interesting to see how the prices have trended into 2018.