Kings County Housing
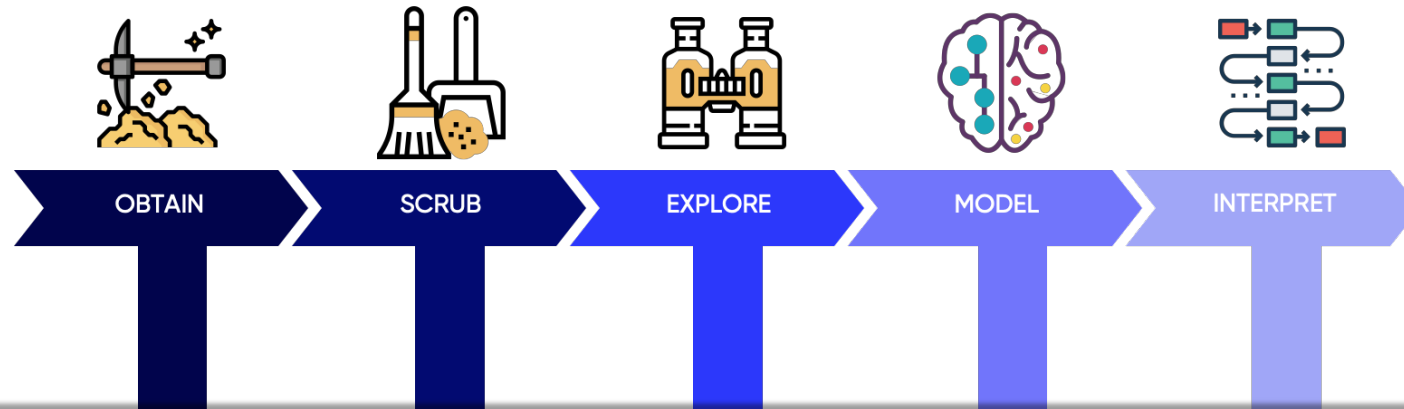
By: Rachel Spiro

GOAL: Predict Housing Prices In Kings County

▶ Model: Multivariate Linear Regression

▶ Variables:

- ▶ Number Of Bedrooms
- ▶ Number Of Bathrooms
- ▶ Square Footage Of The Home
- ▶ Square Footage Of The Lot
- ▶ Total # Of Floors
- ▶ Waterfront View
- ▶ Overall Condition Of The House
- ▶ Grade Based On KC Grading System
- ▶ Number Of Times Viewed

- ▶ Inclusion Of A Basement
- ▶ Year Built
- ▶ Year Renovated
- ▶ Zipcode
- ▶ Latitude
- ▶ Longitude
- ▶ Square Footage Of Nearest 15 Neighbors' Homes
- ▶ Square Footage Of Nearest 15 Neighbors' Lots

METHODOLOGY

Data Science Process

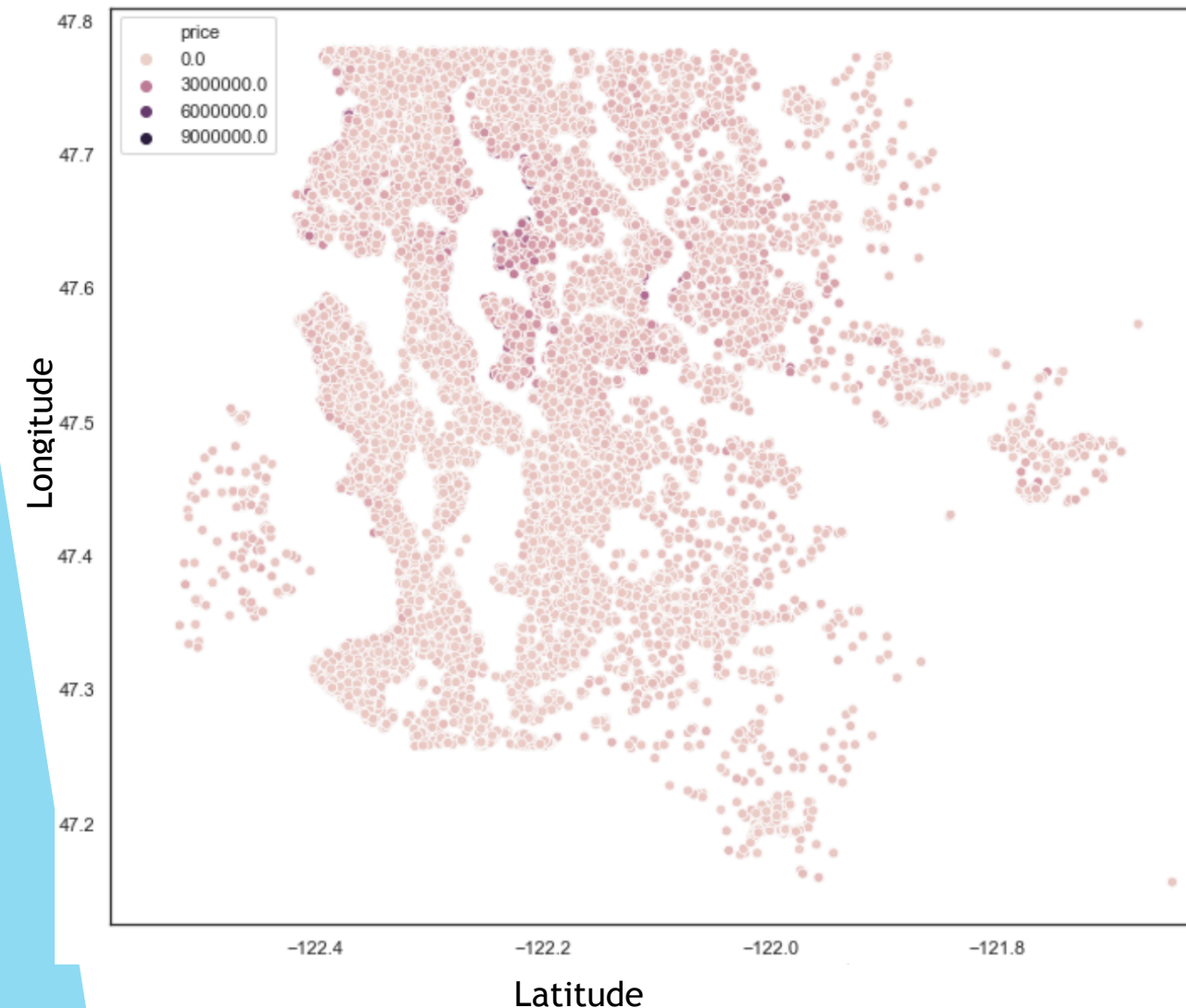| OBTAIN	SCRUB	EXPLORE	MODEL	INTERPRET
O	**S**	**E**	**M**	**N**
Gather data from relevant sources	Clean data to formats that machine understands	Find significant patterns and trends using statistical methods	Construct models to predict and forecast	Put the results into good use

Originally by Hilary Mason and Chris Wiggins
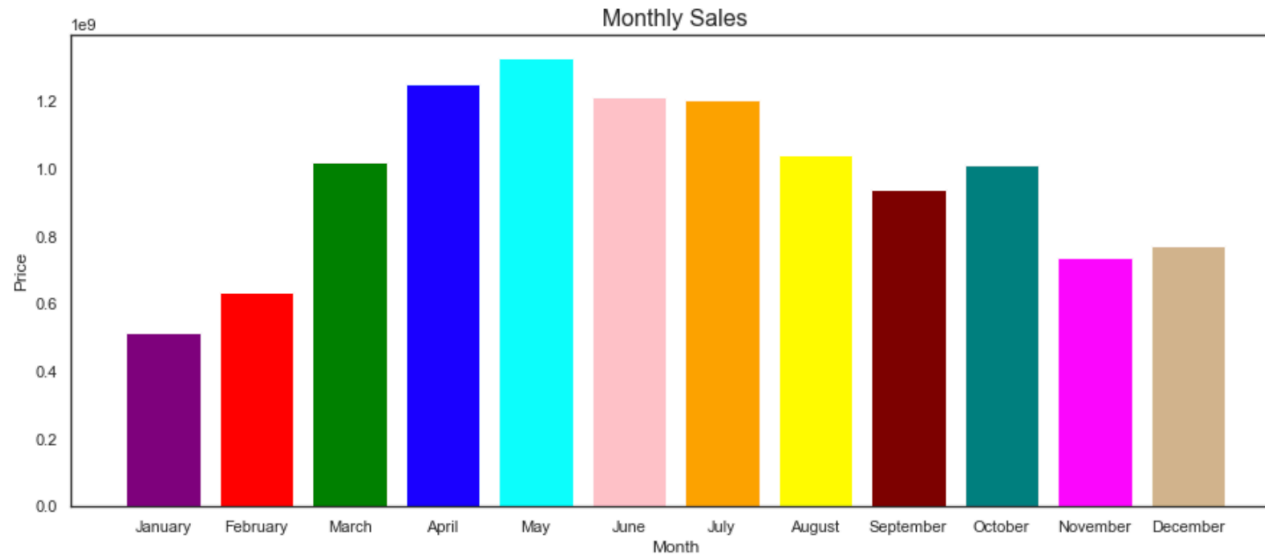
Source: 5 Steps of a Data Science Project Lifecycle

What is the best location?

Location vs. Price

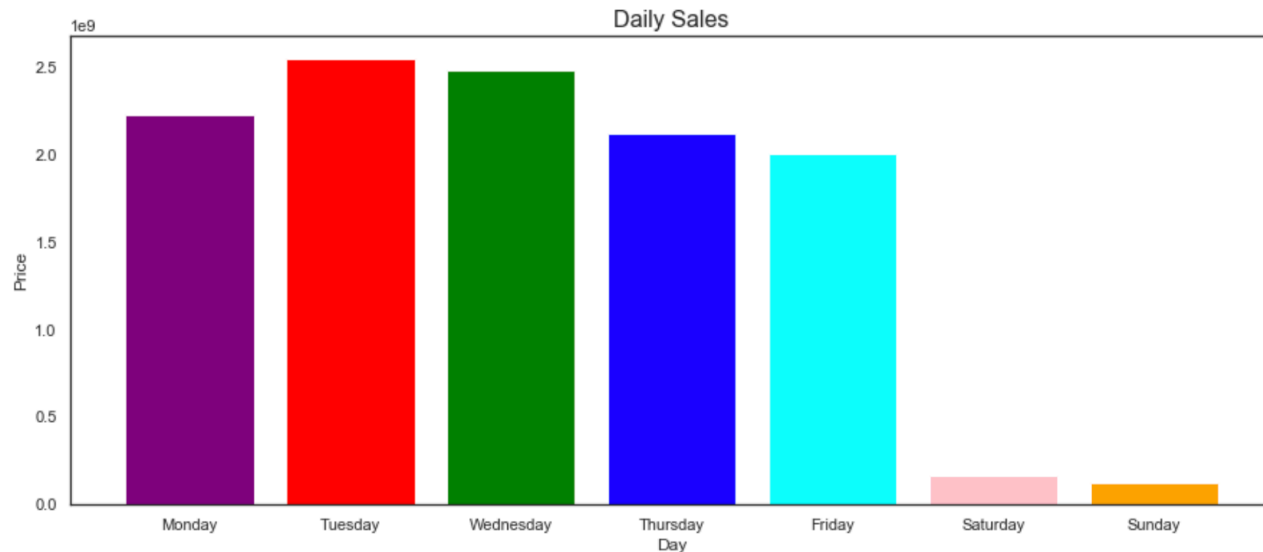
Premium priced houses ($3,000,000+) tend to be located towards the outskirts of the more northern housing areas. There also is a cluster of them near 47.6 longitude and -122.2 latitude. Selling in one of these prime locations will be key to maximizing profit.

When is the best time of year to sell?
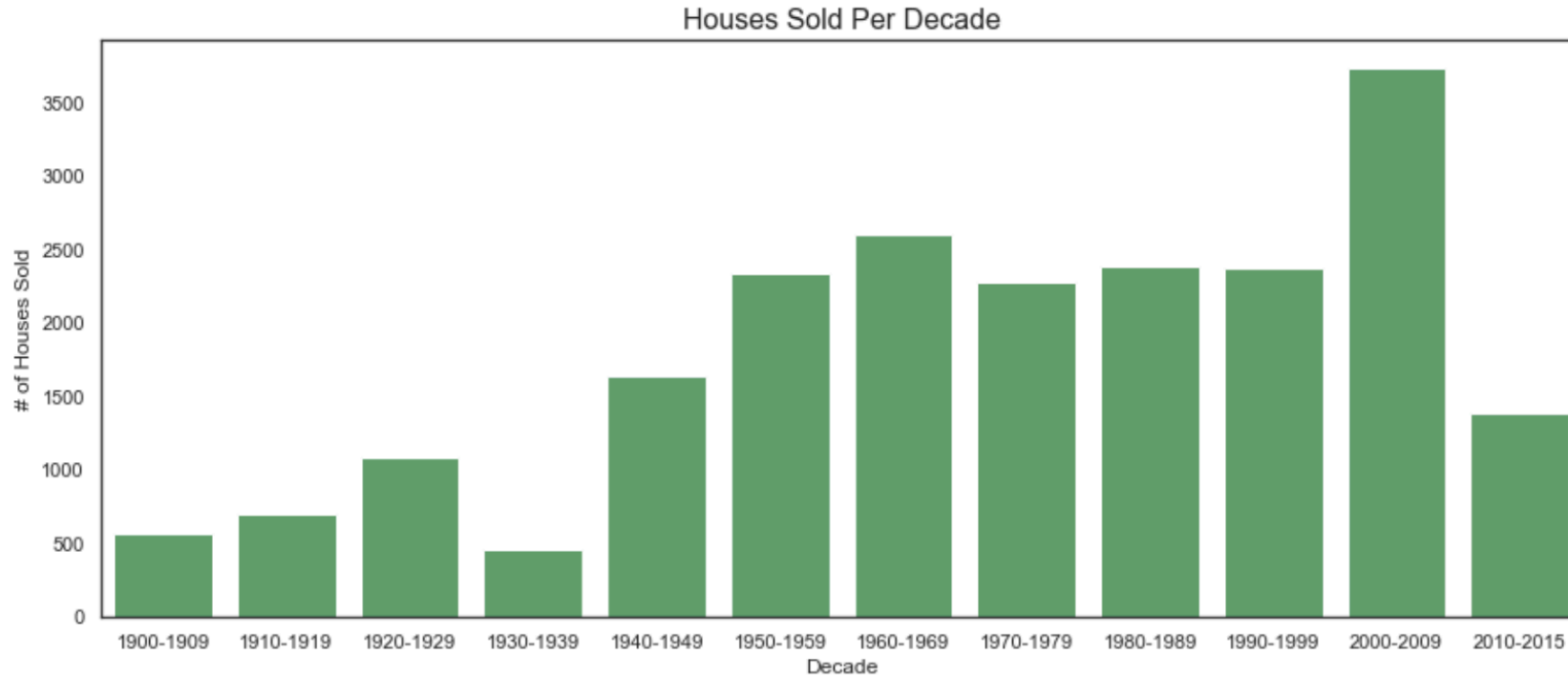

Monthly Sales

Daily Sales

- ▶ Sell during the spring/summer months to garner the greatest profit (March-August).

- ▶ Selling on a weekday is advised as it brings in significantly more revenue than weekends.

Do people prefer new or old homes?

Houses Sold Per Decade

Newly built or renovated houses
(specifically within the last 15 years)
are much more desirable.

What other factors have a strong influence on price?

▶ **Square footage of the house and neighboring houses** – Larger houses sell for higher prices, especially when built near other large, expensive houses.

▶ **Grade of the house** – More expensive homes often are given a higher grade rating from the town.

▶ **Number of Bathrooms** – Homes with more bathrooms tend to be more expensive homes.

▶ **Waterfront View** – Having a waterfront view can increase the value of a home.

Conclusion: Variables to take into account when seeking high home sale profits

- Location
- Waterfront view
- Time of year and day of the week
- When the house was last renovated or built
- Size of the home
- Number of bathrooms
- Grade of the home