



# Predicting King County House Prices Using Linear Regression

---

DOUG STEEN

10/30/2019

# Project Approach

---

King County housing dataset includes home sale prices from May 2014 – May 2015

Includes other features:

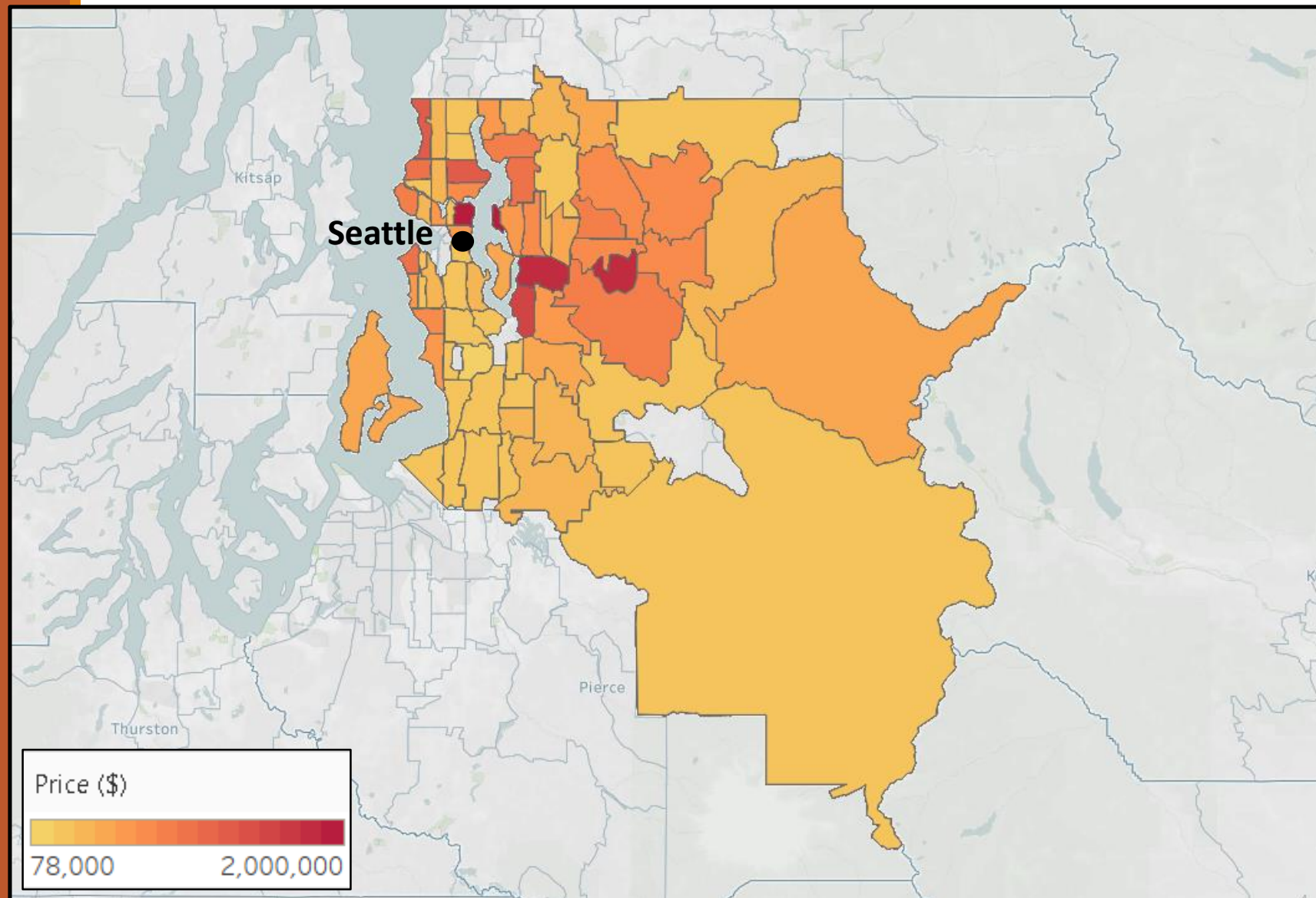
- Location - zip code, latitude and longitude
- Size - ft<sup>2</sup> ... above ground, basement, living area
- Size of neighborhood homes
- Number of floors, bedrooms, bathrooms
- Condition, grade
- Year built, year renovated
- Setting - waterfront, view

Objective: Produce linear regression model to predict sale price using most critical features

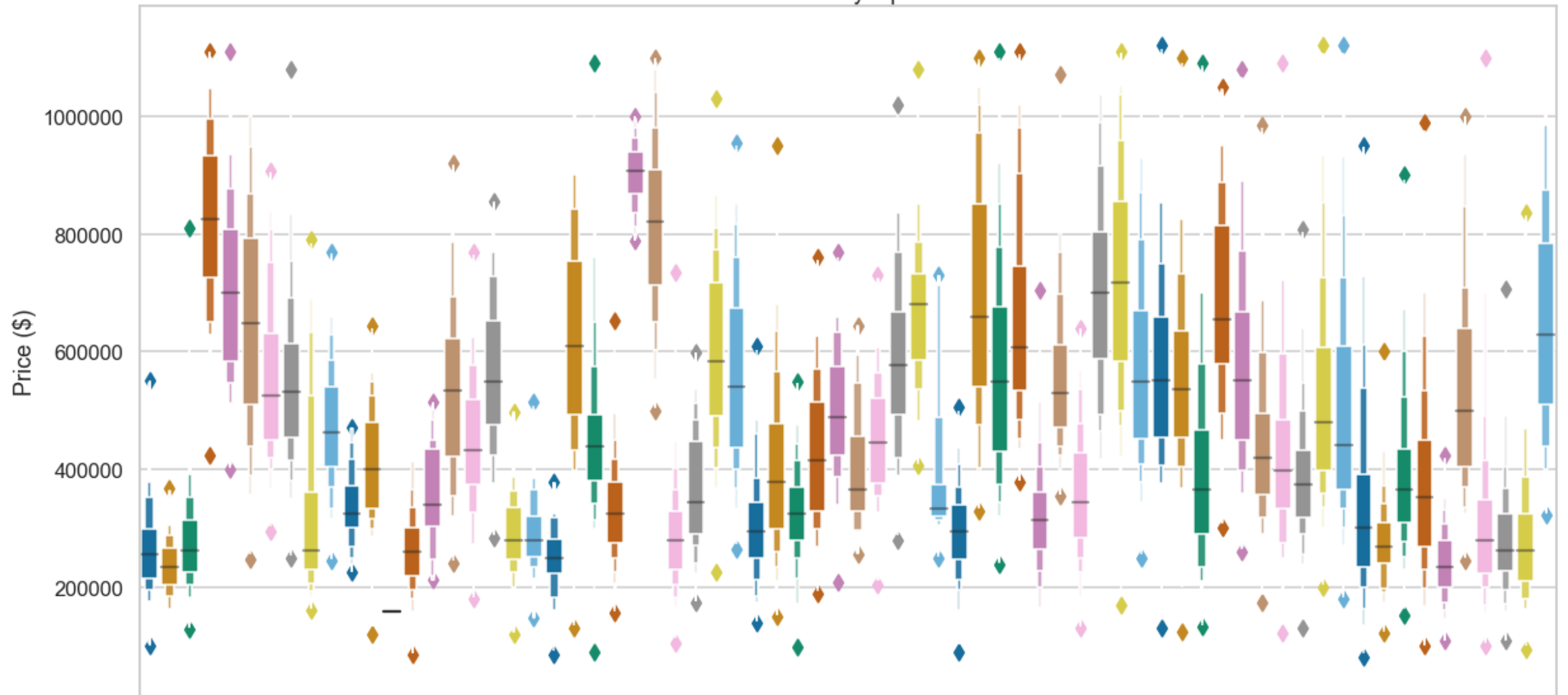
# Results

- Five most important features for predicting sale price:
  - Zip code
  - Construction/Design Grade
  - Neighborhood Home Living Area
  - Distance from Seattle
  - Home Size (excluding basement)
- Model explains 77% of the overall variability in King County house prices

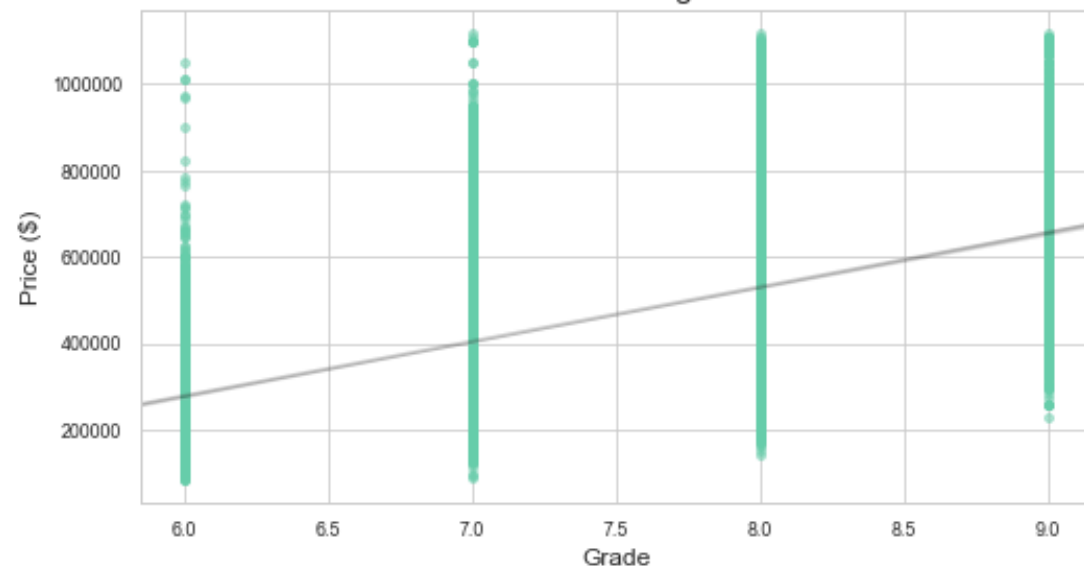
## Median Sale Price by Zip Code in King County



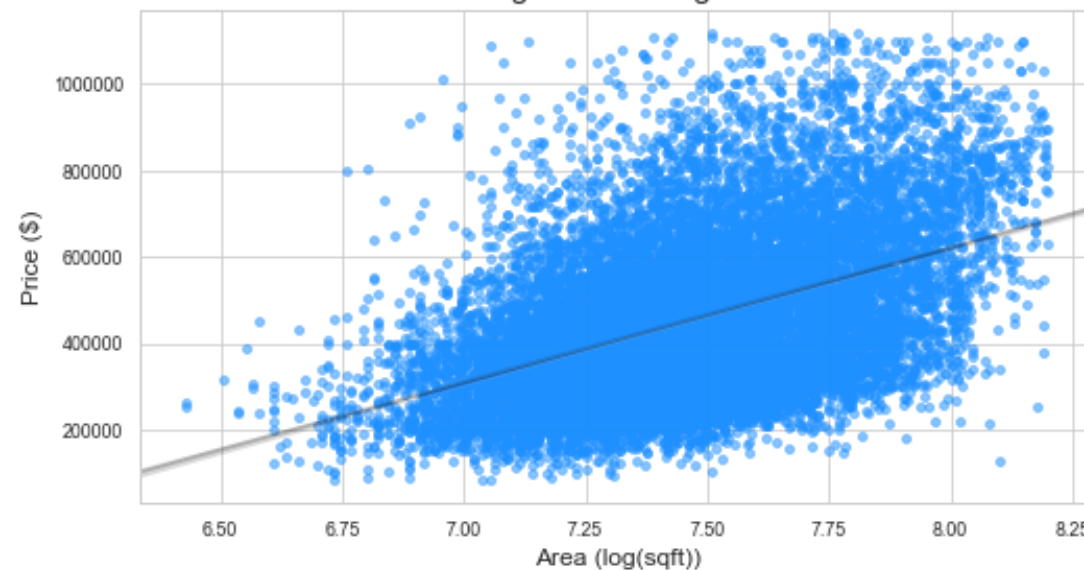
Sale Price by Zip Code



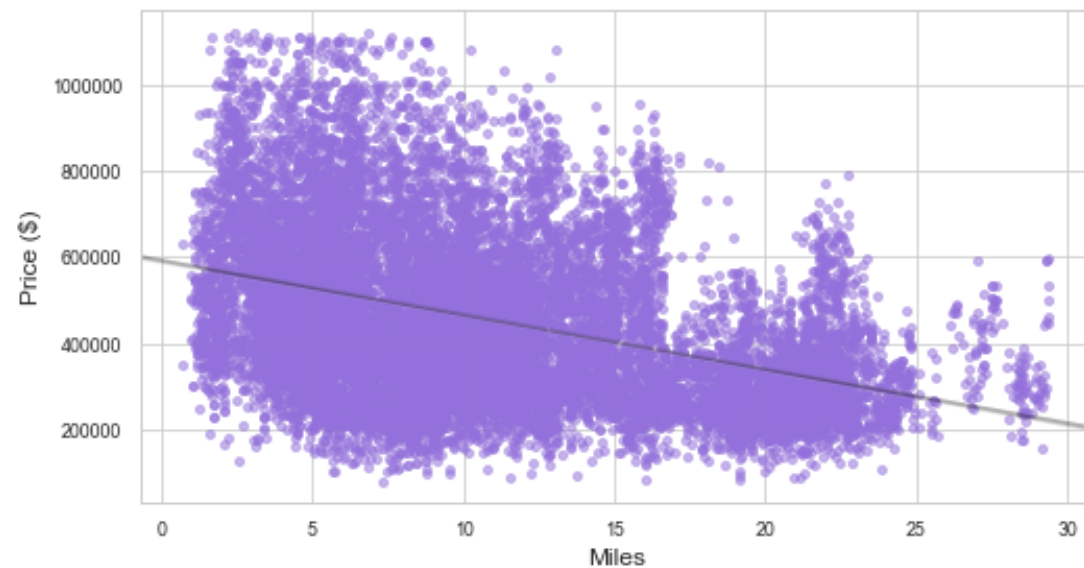
Construction/Design Grade



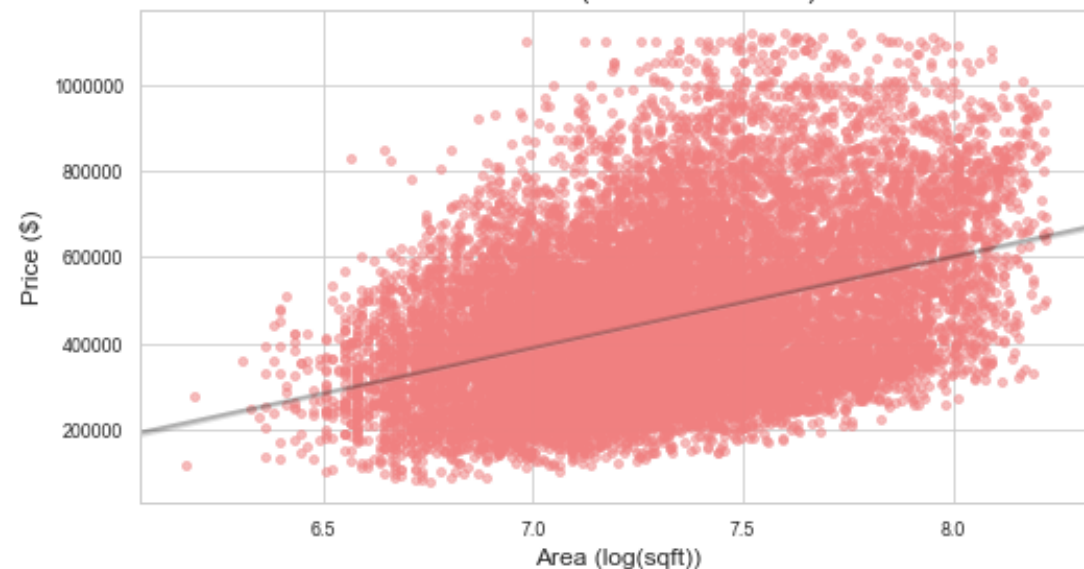
Living Area of Neighbors



Distance from Downtown Seattle



Home Size (Excl. Basement)



# How to maximize profits when selling your home?

---

**Consider an addition to increase the square footage of your home**

- Encourage your neighbors to do the same!



**Stick to quality construction and design for home building and renovations**



**For current homeowners, location factors are largely out of your control**

- If you live in a desirable zip code or close to the city, know your worth!

