# KING COUNTY

Real Estate Development Analysis



## **OUR TEAM: KING.COUNT(Y)**



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## 01 AUDIENCE

King County Development wants to enter the market, but owner can't evaluate buyer preferences

#### 02 CONTEXT

- 1. Focus on single family homes
- 2. Housing near business centers
- 3. Marketing assets as "luxury homes"

#### 03 OUTCOMES

- 1. ID best areas
- 2. ID necessary build quality
- 3. ID qualitative metrics
- 4. Build price model for build team

## **OVERVIEW**

# "All models are wrong, some are useful."

**—GEORGE BOX** 

## DATA



#### **TIME FRAME**

Sale information from May '21 - May '22



### **TARGETING DATA**

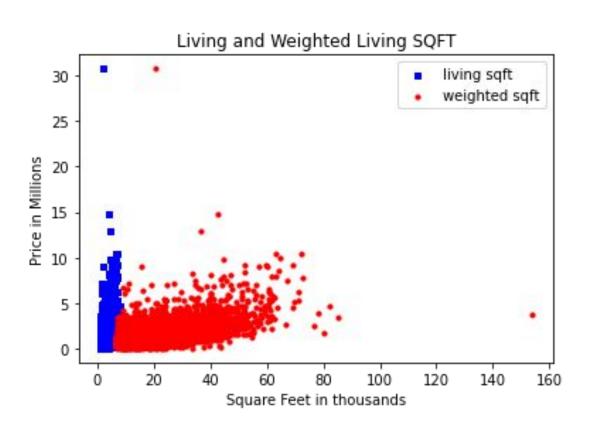
- City/township
- Square Footage
- Qualitative
- Build quality



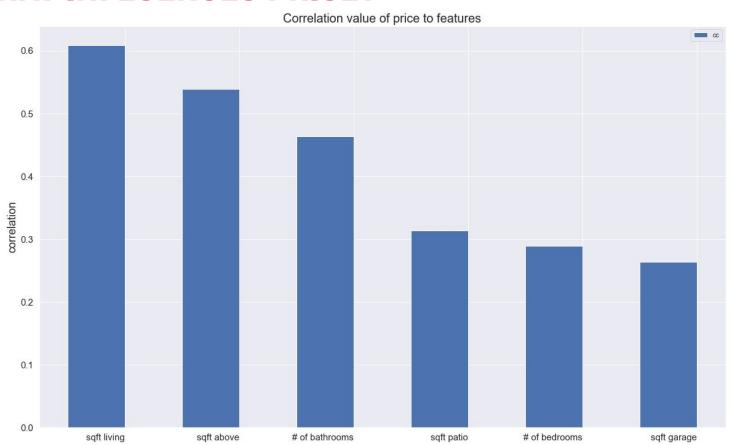
### **DATA ENGINEERING**

Qualitative and living area features multiplied by Grade

## WHAT IS THE VALUE OF A SQUARE FOOT?



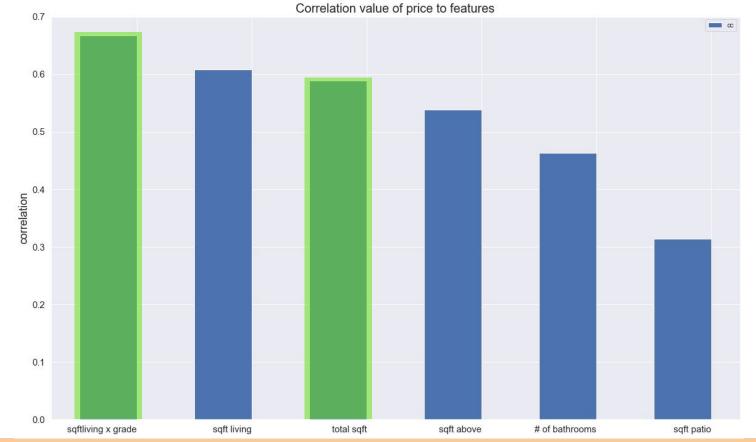
## WHAT INFLUENCES PRICE?



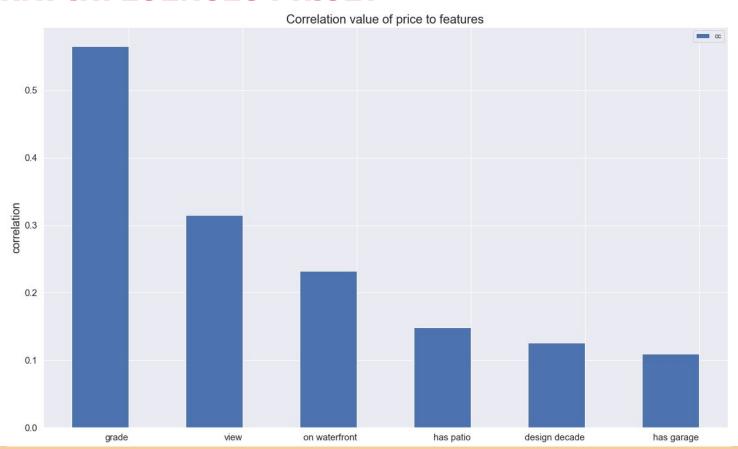
## WHAT INFLUENCES PRICE?

**Engineered Features** 

- Total\_sqft
- Weighted\_living

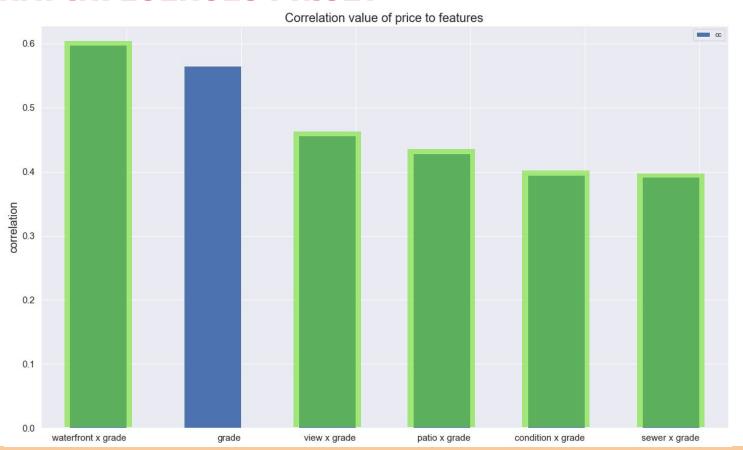


## WHAT INFLUENCES PRICE?



## WHAT INFLUENCES PRICE? Engineered features

All categorical features weighted by Grade



## WHAT LOCATIONS COMMAND HIGHEST VALUE?

**LOCATION: MEDINA** 

Commands min price of \$2.4MM

**LOCATION: CLYDE** 

Commands min price of \$2.3MM

**LOCATION: MERCER** 

Commands min price of \$655K

## WHAT LOCATIONS COMMAND HIGHEST VALUE?

#### WATERFRONT

Price increases by \$123K for every grade

#### **DESIGN AGE**

Price increases by \$38K as design modernizes

#### **VIEWS**

Price increases by \$10K as grade and view improve

## MODEL EXPLAINS 66% OF DATA

#### **Error Margins:**

- 20% error margin(0.27M) using MAE.
- 40% error margin(0.49M) using RMSE.

## **RECOMMENDATIONS**

#### 2,000 SQFT HOME

Local incentive, multiplicative with grade

#### CITY

Medina, Clyde Hill, Mercer Island

#### **QUALITY**

Build quality impacts everything

#### **QUALITATIVE**

Waterfront and view commands high price

## **CLOSING THOUGHTS**

#### THINGS TO IMPROVE

Review cities manually

• Continue to iterate on model

Look at trends over multiple years

## THANKS

Time to make like a beaver and build the dam thing!

Any questions?

