



# PROFIT PROPHETS

## Jennifer Montgomery



# Profit Prophets:

We predicting  
Success with Precision.





# Presentation



## Data Analysis

Deeper insights in the data set



## Customer Portrait

Presenting customer demands & underlying interests



## Investment Cases

Presentation of best investment cases



## Schedule

Advisory on market timing, both buy & sell side

# 01

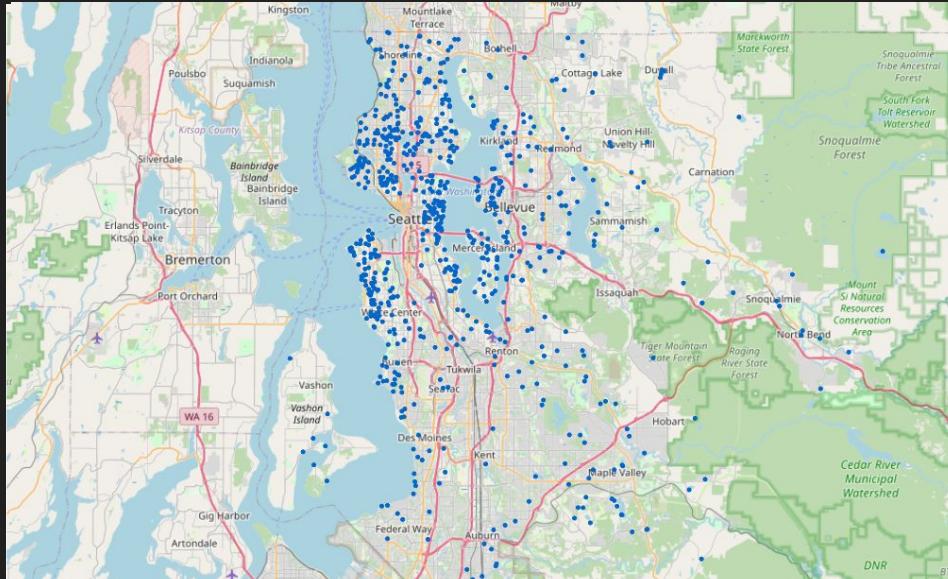
# Data

# Analysis





# Focus: Renovations



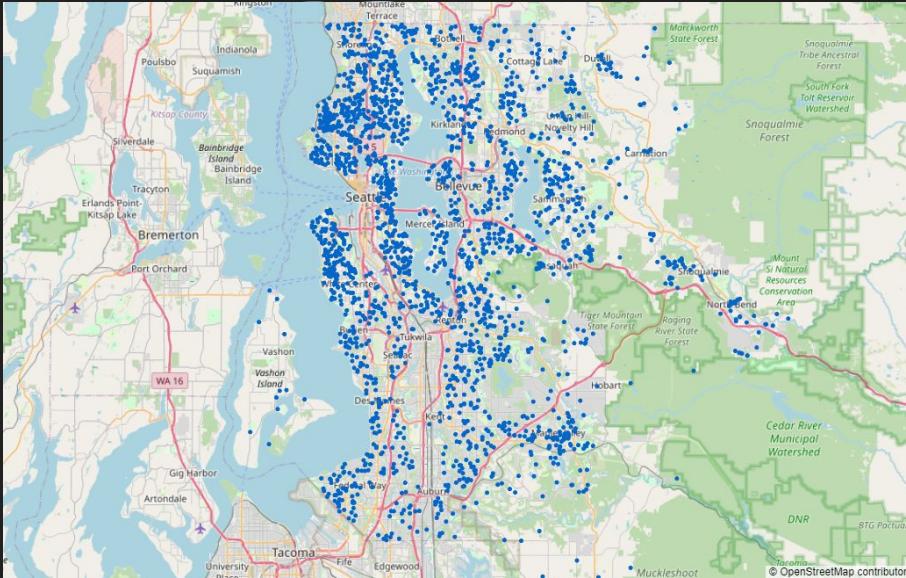
Houses that have been renovated

Where did people renovate?

City center way more renovated than outer 'rural' area

Caveat: not normalized by population / all data points

# Focus: Data fixing



Houses with missing data for waterfront

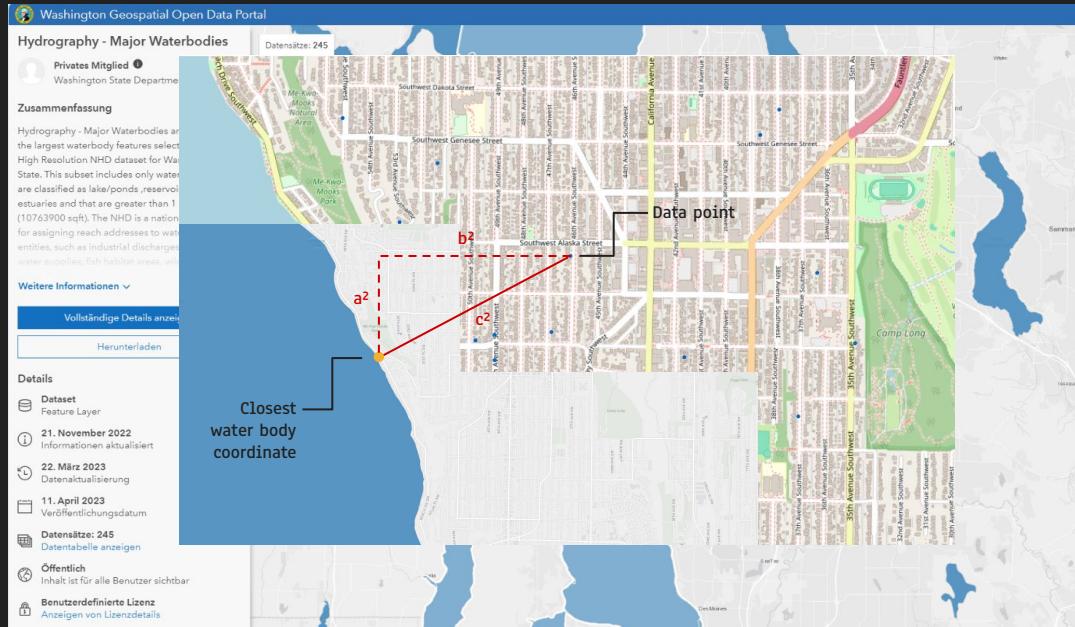
Can we reduce NaN  
for waterfront?

Many cases where no lake  
or river is nearby

How to isolate those cases?



# Focus: Data fixing



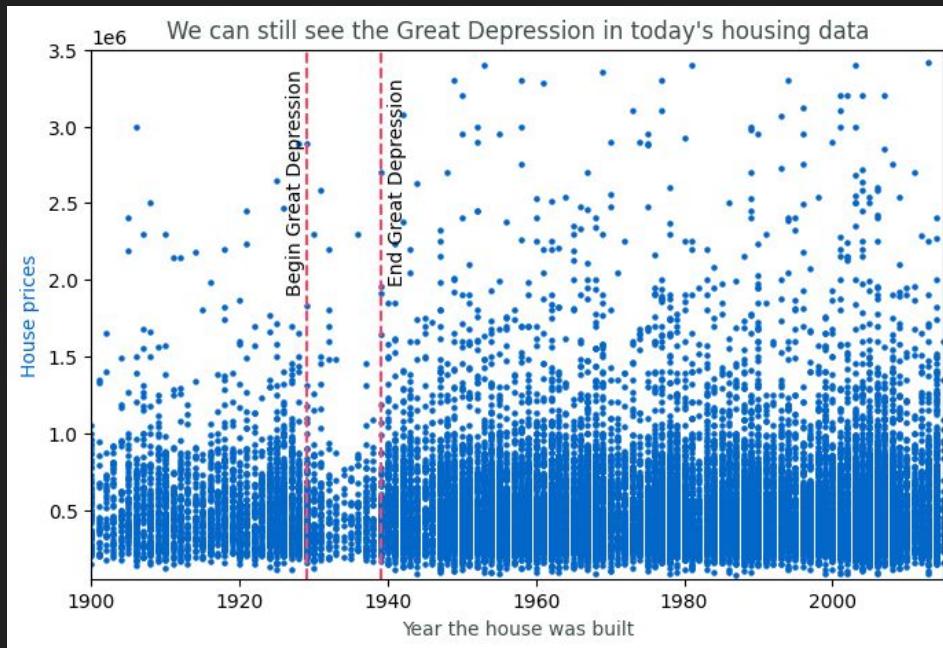
Water bodies: Washington Geospatial Open Data Portal

Can we reduce NaN  
for waterfront?

Polygons with water  
bodies (lakes, rivers etc.)

Fetching of closest water body  
coordinate failed for three hours

# Focus: Great Depression



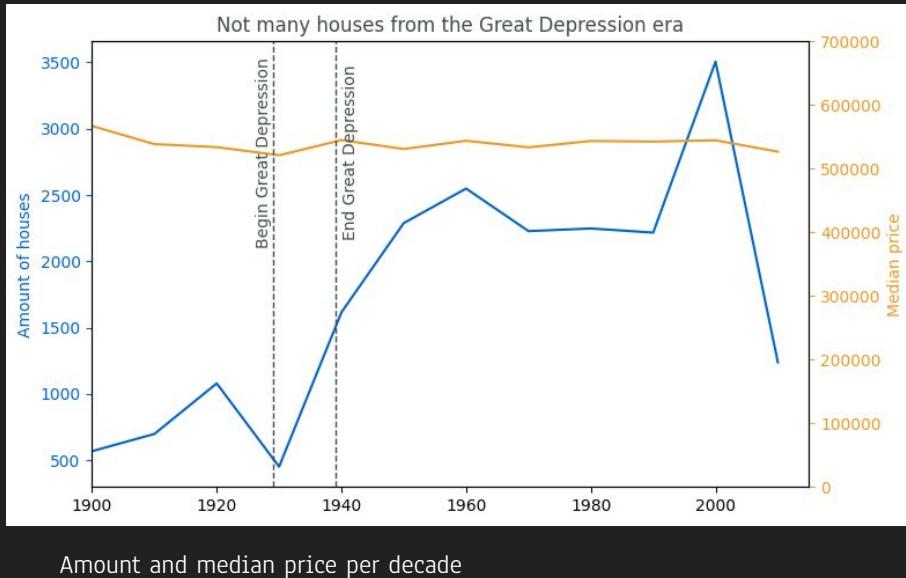
Houses and their prices scattered over time

Can we still see the Great Depression?

Yes, it seems there are way less houses on the market from that period

But: Only first hint, let's check closely

# Focus: Great Depression

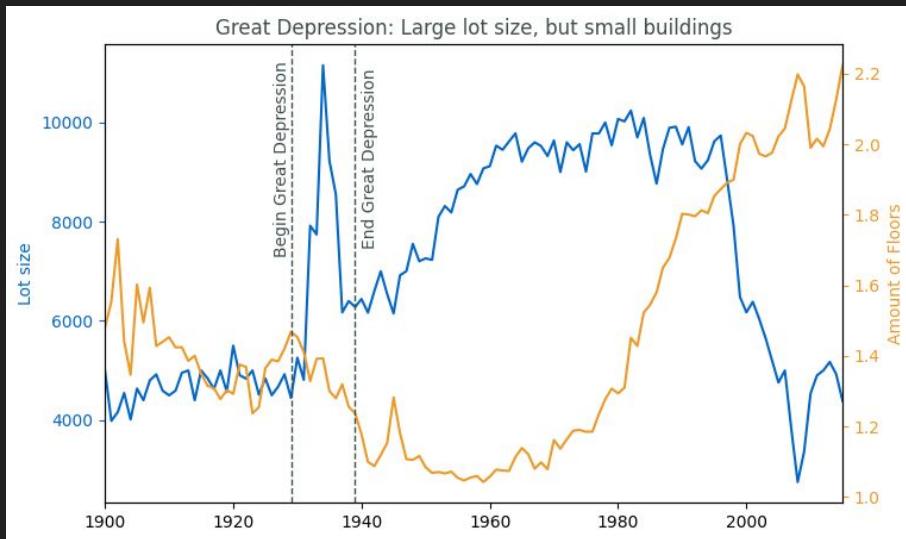


Can we still see the Great Depression?

Truly less houses available from that period, but prices are pretty stable over time

But when people had no money: Did they reduce their costs?

# Focus: Great Depression

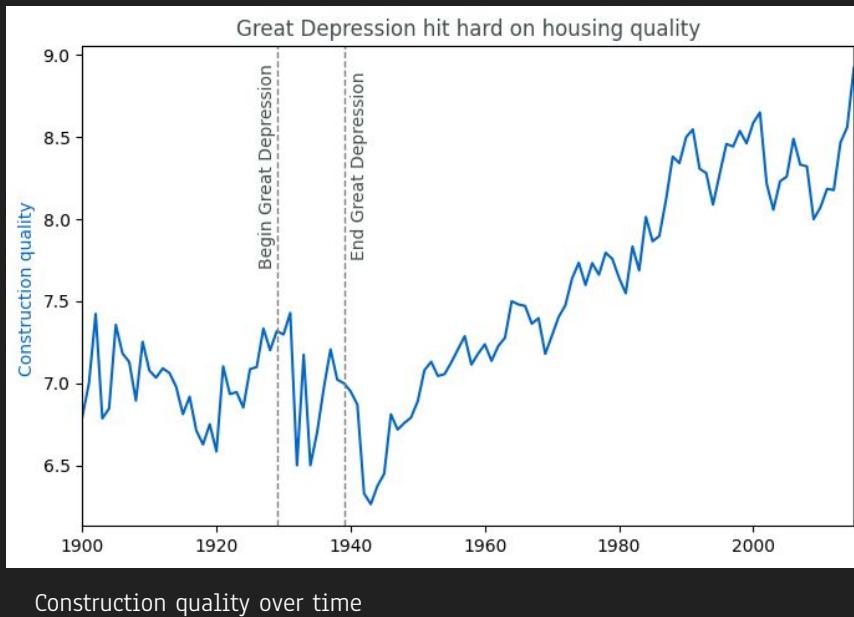


Can we still see the Great Depression?

Lot size did not crash, but instead peaked during the crisis, but buildings got smaller

Did people only built smaller houses? Or also shabbier ones?

# Focus: Great Depression



Can we still see the Great Depression?

Yes, quality of newly constructed buildings diminished

Strongest decrease even after the end of the Depression



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02

# Customer Portrait



# Jenny Montgomery

## Character

- Wants to show off
- Wealthy | has high budget

## Demands

- Waterfront
- Renovated
- High grades
- Buy: within a month
- Sell: within 1 year



# 03

# Investment Cases



# Database query



## Price

Higher than 80th quantile



## Waterfront

Water nearby and line of sight



## Grade

Higher than 80th quantile



## Area

Lot and living area bigger than 110% of neighbours



## Renovation

Renovation no longer than 50 years ago



## View

Higher than 95th quantile





# #1 Yarrow Point

95th Ave NE

\$ 749.950

Floors: 2

Bedrooms: 5

Bathrooms: 4.5

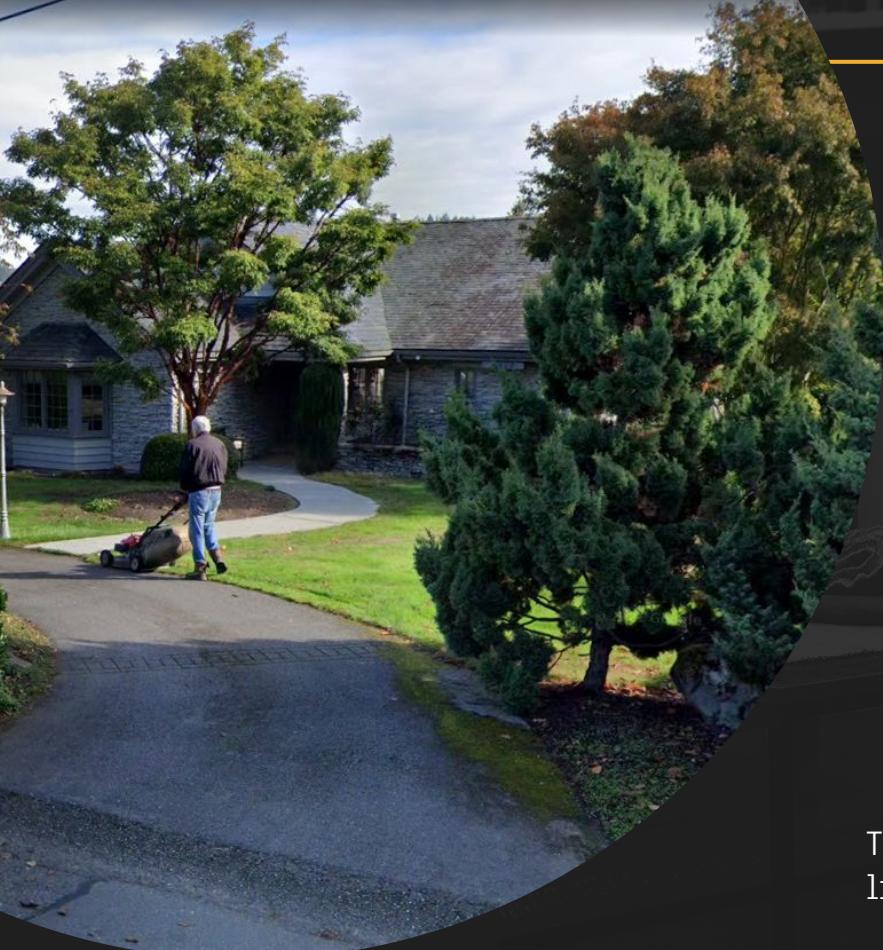
Waterfront: Yes

View: Average

Grade: Very good

Renovated: 2001

The total loft is 37.325 ft<sup>2</sup>, 47% bigger than neighbours. The living area is 10.040 ft<sup>2</sup>, 155% larger than houses nearby.





# #2 Mercer Island



Butterworth Rd

\$ 775.000

Floors:	1
Bedrooms:	5
Bathrooms:	6.75
Waterfront:	Yes
View:	Supreme
Grade:	Extremely good
Renovated:	2009

The total loft is 13.068 ft<sup>2</sup>, 25% bigger than neighbours. The living area is 9.640 ft<sup>2</sup>, 1.95% larger than houses nearby.



# #3 Bellevue

Lake  
Sammamish      \$ 1.490.000

Floors: 1  
Bedrooms: 5  
Bathrooms: 3.25  
Waterfront: Yes  
View: Supreme  
Grade: Very good  
Renovated: 1980

The total loft is 41.300 ft<sup>2</sup>, 62% bigger than neighbours.  
The living area is 4.220 ft<sup>2</sup>, 11% larger than houses nearby.





# 04

# Investment Schedule



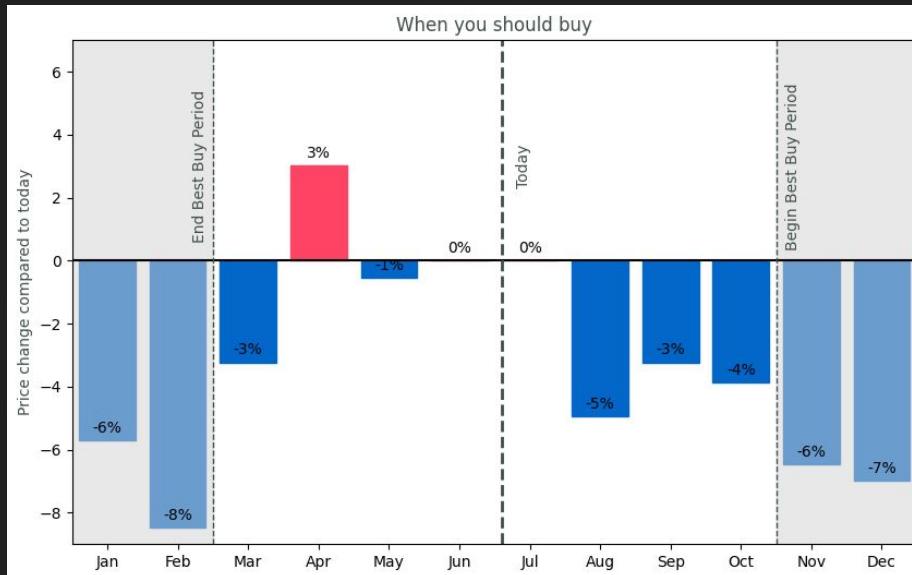
# When should you buy?

## Current

Prices are high.  
Purchase within  
a month not  
advisable.

## Optimal

Lowest prices:  
Nov - Feb



## August

Prices drop from  
August on

## April

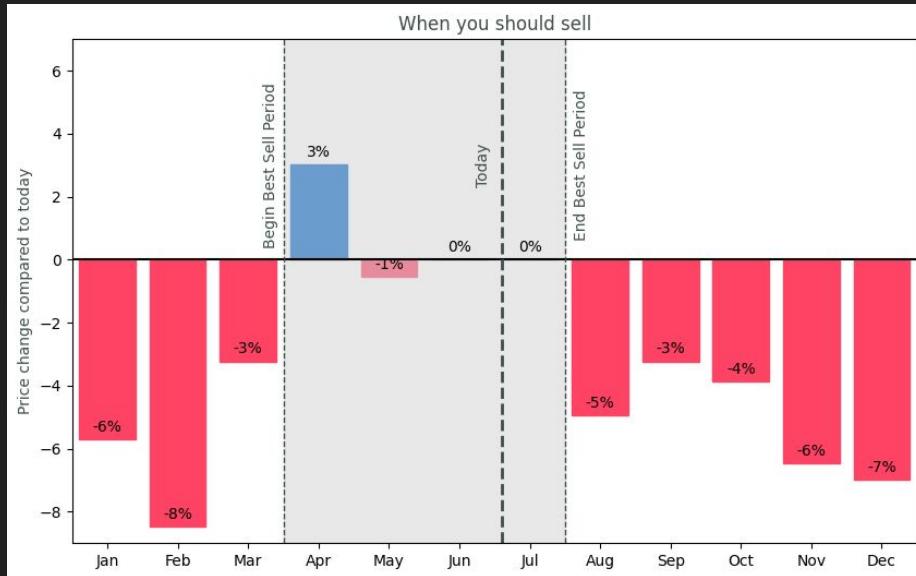
Don't buy in April.  
Prices are high



# When should you sell?

**Current**  
Prices are a bit  
over average.

**February**  
Don't sell in  
February.



**Optimal**  
Best to sell in  
April till July.

**April**  
Best month is  
April.



Thank you!

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We predicting  
Success with Precision.