



# Real Estate Analysis

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# Agenda



I. Address Stakeholder



2. Data Background



3. Predictive Model



4. Conclusion/ Recommendations



5. Next Steps

# Business Question

- King of the Deck Co.
- Should King of the Deck expand into home renovations?
- What is the ideal deck size?



# Data Understanding

- Over 30,000 within USA
- Sold in 2021-2022
- Built 1900-2022



# Data Understanding

- Data Information
  - Numeric (Square Footage, bedrooms, bathrooms, etc.)
  - Categorical (View, Condition, Noise, etc.)



# Modeling



# Main Factors:

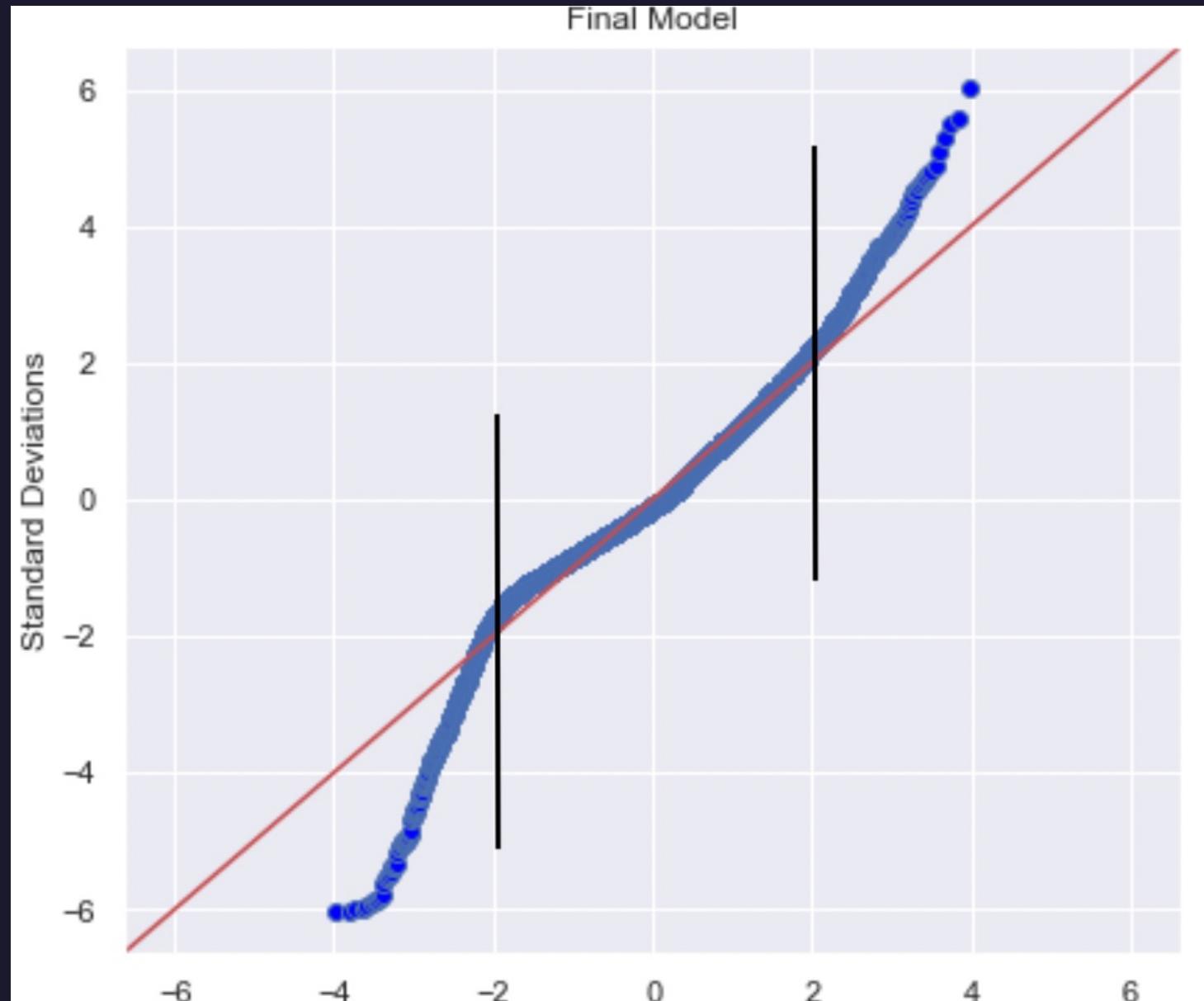


- Both have some relationship with price
- Living area seems to have stronger relationship



# Modeling

- The model explains **68%** of the variance
- Average predictions off by **22%**
- Accurate within **2 standard deviations**
  - Middle **95%** of the data
- High and Low Priced Houses



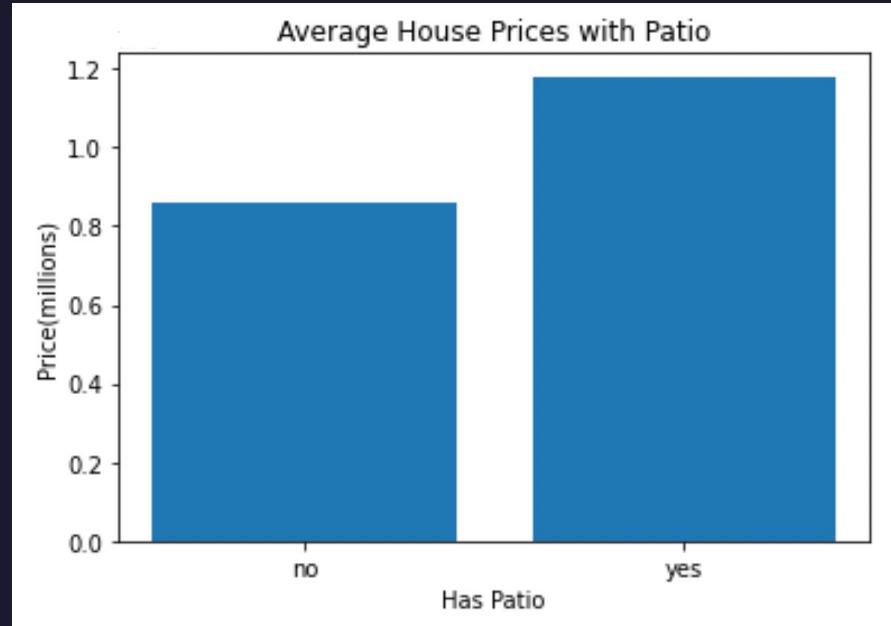
# Regression Results

- Adding 1 square foot of patio → **.006% gain in house price**
- Adding 1 square foot of living area → **.03% gain in house price**



# Deck Statistics

- Patio adds value to House
- Patio vs Living Area
  - ~10%
- Patio vs Lot Size
  - ~3%



# Recommendations

## Consider Expanding

- Include Indoor Renovations

## Benefits of Deck to clients:

- Lower Cost
- Less Headache than full renovation

## Ideal Deck Size

- 10% of Living Area
- 3% of Lot Size

# Next Steps

- Option I
  - Look into deck materials
    - Profitability
    - Add value
    - Aesthetically pleasing



# Next Steps(II)

- Option II
  - Create more accurate model with more Data:
    - House of worship
    - Proximity to parks
    - Landscaping (pool, courts, green area)
    - Social and Economic Factors



A photograph of a modern outdoor terrace. The terrace features light-colored wooden furniture, including a sofa and chairs with white and blue cushions, and a low wooden coffee table. Large potted plants are scattered throughout the space. In the background, there's a dark wooden fence with white star-shaped lights hanging from it, and a building with many windows is visible through the trees.

Thank You

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