AirBnB Price Prediction System

Phase V Final Project

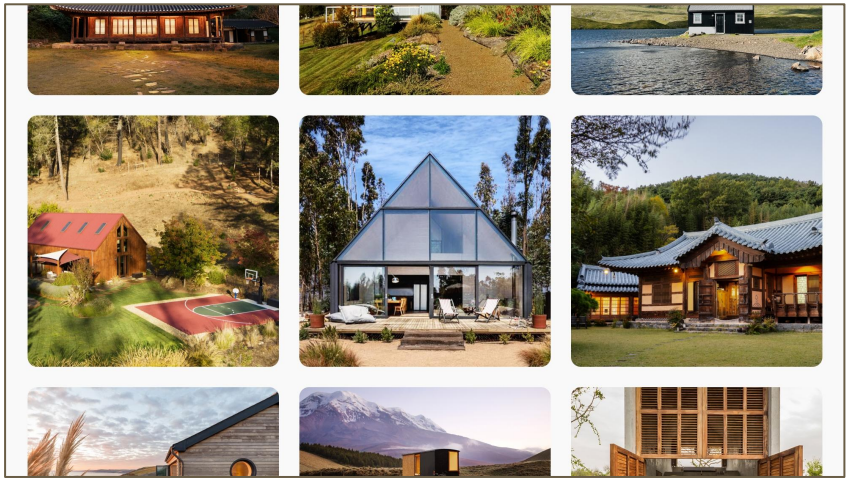
Presented: Skye Jeanat

Agenda

- About the Stakeholder
- Data Set Details
- Top Performing Models
- Summary Recommendation
- Questions?
- Streamlit Exercise

About the Stakeholder

- New AirBnB Homeowner
- Located in Asheville, Nashville, or Austin
- Max 6 bedrooms
- Offers an entire home/apartment or private room



Data Set Details

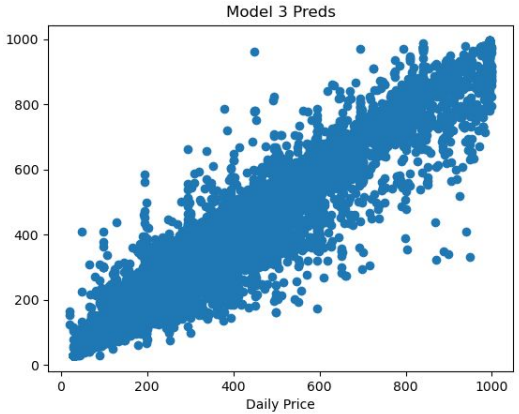
- **Asheville:**
  - Calendar Data:
    - 958,490 rows
    - 7 columns
    - 12/2021 - 12/2022
  - Listings Data:
    - 2,626 rows
    - 74 columns

- **Nashville:**
  - Calendar Data:
    - 2,320,689 rows
    - 7 columns
    - 12/2021 - 12/2022
  - Listings Data:
    - 6,359 rows
    - 74 columns

- **Austin:**
  - Calendar Data:
    - 4,369,416 rows
    - 7 columns
    - 3/2021 - 3/2022
  - Listings Data:
    - 11,971 rows
    - 74 columns

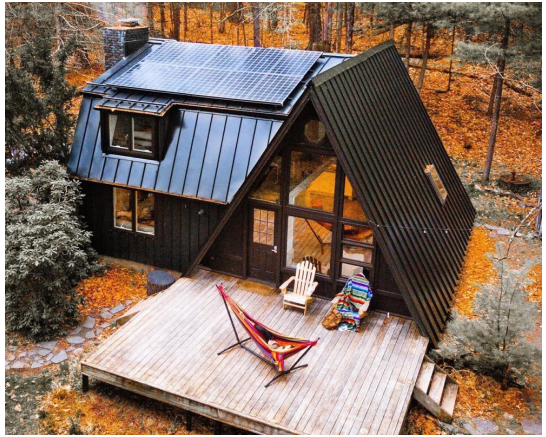
Top Performing Model

- Model Characteristics:
  - Simple, Random Forest Regressor
- Asheville Results:
  - Train MAE - $2
  - Test MAE - $5
- Nashville Results:
  - Train MAE - $5
  - Test MAE - $12
- Austin Results:
  - Train MAE - $3
  - Test MAE - $6



Summary and Recommendation

- Recommendation:
  - Utilize a simple, random forest regressor model
- Benefits:
  - Scientific approach to pricing
  - Maximize profits
- Next Steps:
  - Price impacts, inflation
  - AirBnB experiences
  - Additional data



Questions?

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Streamlit Exercise

- Link:
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