

A mockup of a web dashboard titled "SafeStay LA Airbnb Safety Dashboard". The dashboard is displayed on a light gray rectangular panel with rounded corners, set against a background of a stylized map with yellow, blue, and green lines. The panel has a header bar with three colored dots (red, yellow, green) on the left and a blue horizontal line on the right. The main content area features the title "SafeStay LA" in a large, colorful, handwritten-style font, followed by "Airbnb Safety Dashboard" in a bold, dark gray sans-serif font. Below the title is a white search bar with a magnifying glass icon on the left and the text "Evangeline Chang" in the center. The search bar is flanked by a red dot on the left and a blue horizontal line on the right. At the bottom of the panel, there is a horizontal bar with four colored segments: yellow, red, green, and blue. The entire mockup is surrounded by various colored lines and dots, including a yellow horizontal line at the top left, a blue horizontal line at the top right, a red dot at the top right, a yellow horizontal line at the top right, a blue horizontal line at the bottom right, a red dot at the bottom left, and a yellow dot at the bottom right.

# SafeStay LA

## Airbnb Safety Dashboard



Evangeline Chang



# Agenda

## Problem

Why my work is needed

## Data Sources

Where I got the data from

## Data Utilization

How I used the data

- Crime and Population Data
- Airbnb Listings
- Airbnb Reviews

## Dashboard

What I put on the dashboard



## ❗ Problem

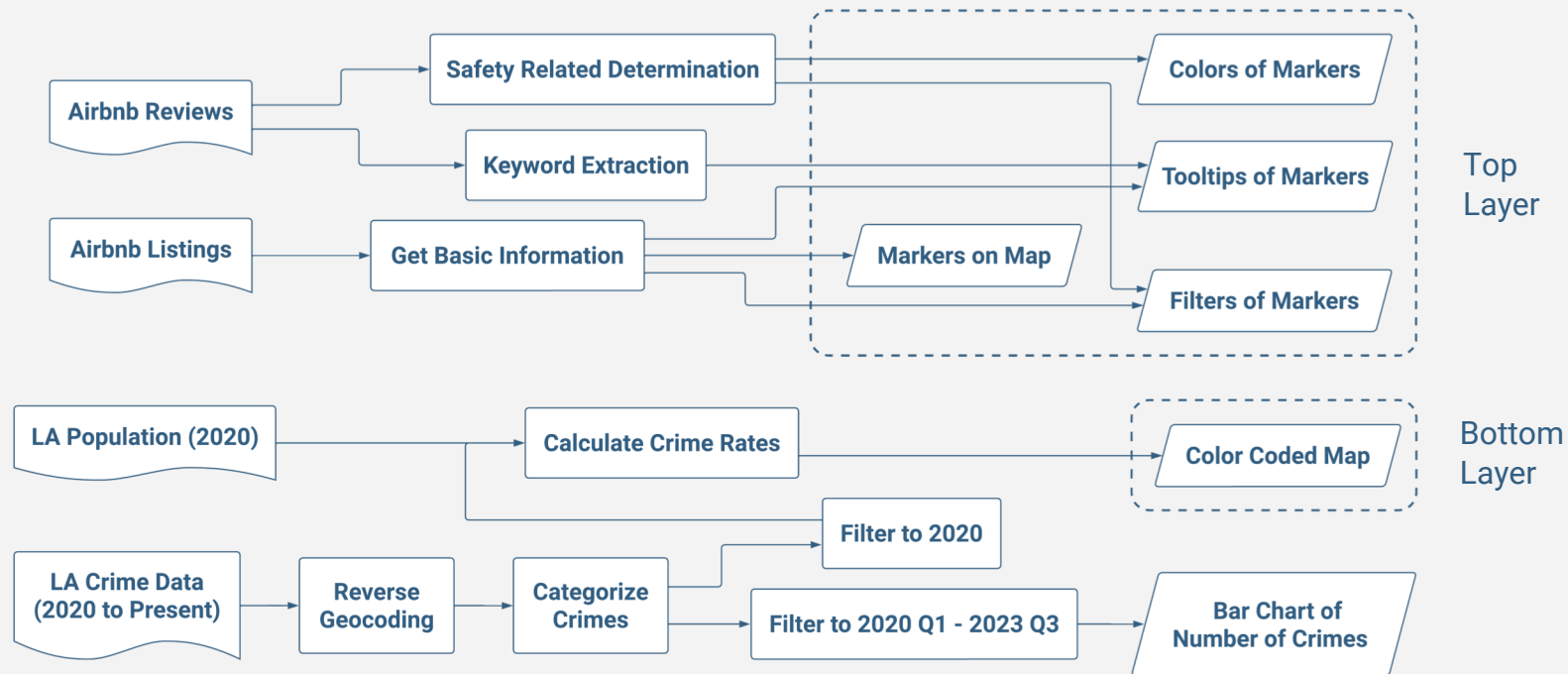
- Safety concerns in LA
- Airbnb app's lack of emphasis on safety considerations
- Empower users to prioritize safety in their accommodation choices



## Data Sources

- Inside Airbnb – Airbnb Listings & Reviews (Sep 3, 2023)  
(<http://insideairbnb.com/get-the-data/>)
- DataLA – Crime data in Los Angeles (Nov 8, 2023)  
(<https://data.lacity.org/Public-Safety/Crime-Data-from-2020-to-Present/2nrs-mtv8>)
- US Census Bureau – Population by ZIP Codes (2020)  
([https://data.census.gov/table/DECENNIALDHC2020.P1?q=040XX00US06\\$86000000&y=2020](https://data.census.gov/table/DECENNIALDHC2020.P1?q=040XX00US06$86000000&y=2020))

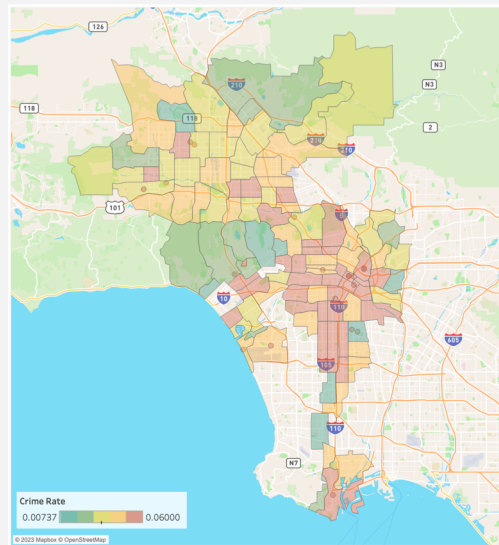
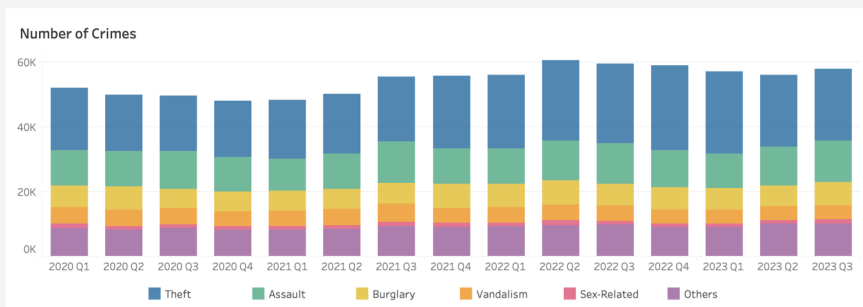
## Data Utilization





## Crime and Population Data

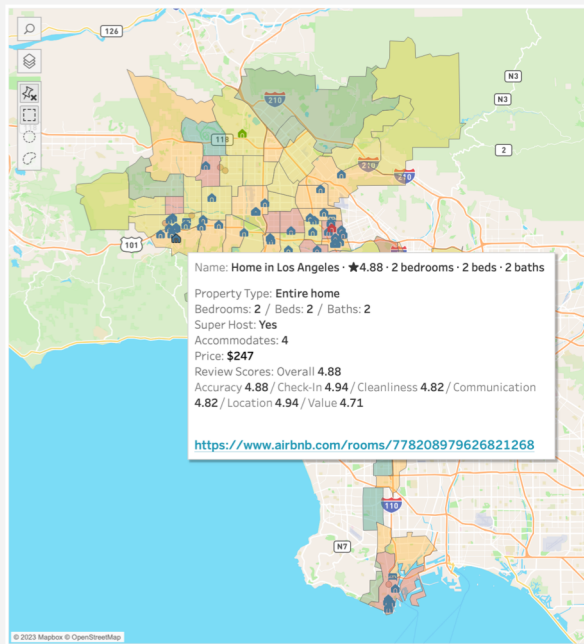
- Reverse Geocoding (Nominatim)
- Categorized Crimes
- Crime Rate by ZIP Codes
- Number of Crimes by Quarters and ZIP Codes





# Airbnb Listings

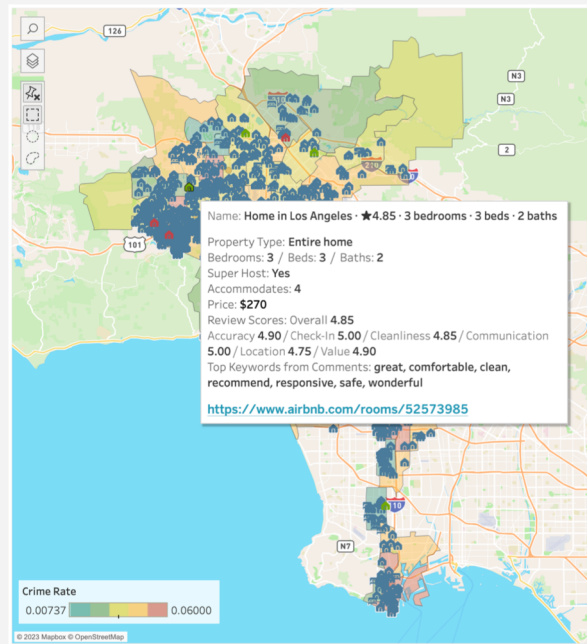
- Name
- Property Type, Room Type
- Bedrooms, Beds, Baths
- Super Host
- Accommodates
- Price
- Ratings
- Listing URL





# Airbnb Reviews

- **Cleaning**
  - Remove non-English reviews
  - Remove comments that are too short
- **Keyword Extraction (yake)**
  - Remove host names and words that meant nothing when alone  
e.g. Wendy's house, place, Airbnb
- **Safety Related**
  - Set keywords: safe, security, danger, unsafe, safety, dangerous







## Dashboard

- Remove areas that are not part of LA
- Remove Airbnb listings with no bottom layer



## Dashboard

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[https://public.tableau.com/views/SafeStayLAAirbnbSafetyDashboard/Dashboard22?:language=en-US&publish=yes&:display\\_count=n&:origin=viz\\_share\\_link](https://public.tableau.com/views/SafeStayLAAirbnbSafetyDashboard/Dashboard22?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link)





# Thank You



SafeStay LA