

mybnb

Helping Hosts improve their booking frequency



Motivation & Demo

- San Francisco is a popular travel destination & Airbnb provides a platform for hosts to accommodate guests
- Host Analytics has room for improvement: informing hosts of a listing's shortcomings (with respect to more frequently occupied listings) can drive Hosts to make a change.



Siobhan McNally
Local Airbnb Host:



Data & Features

- Scraped San Francisco Airbnb listings as of Jan-4, 2020
- ~100 columns of raw data including listing names, descriptions, host-related elements, property-related elements, and pricing.
- ~8000 listings captured
- Narrowed down to **26 features + 1 binned response** variable

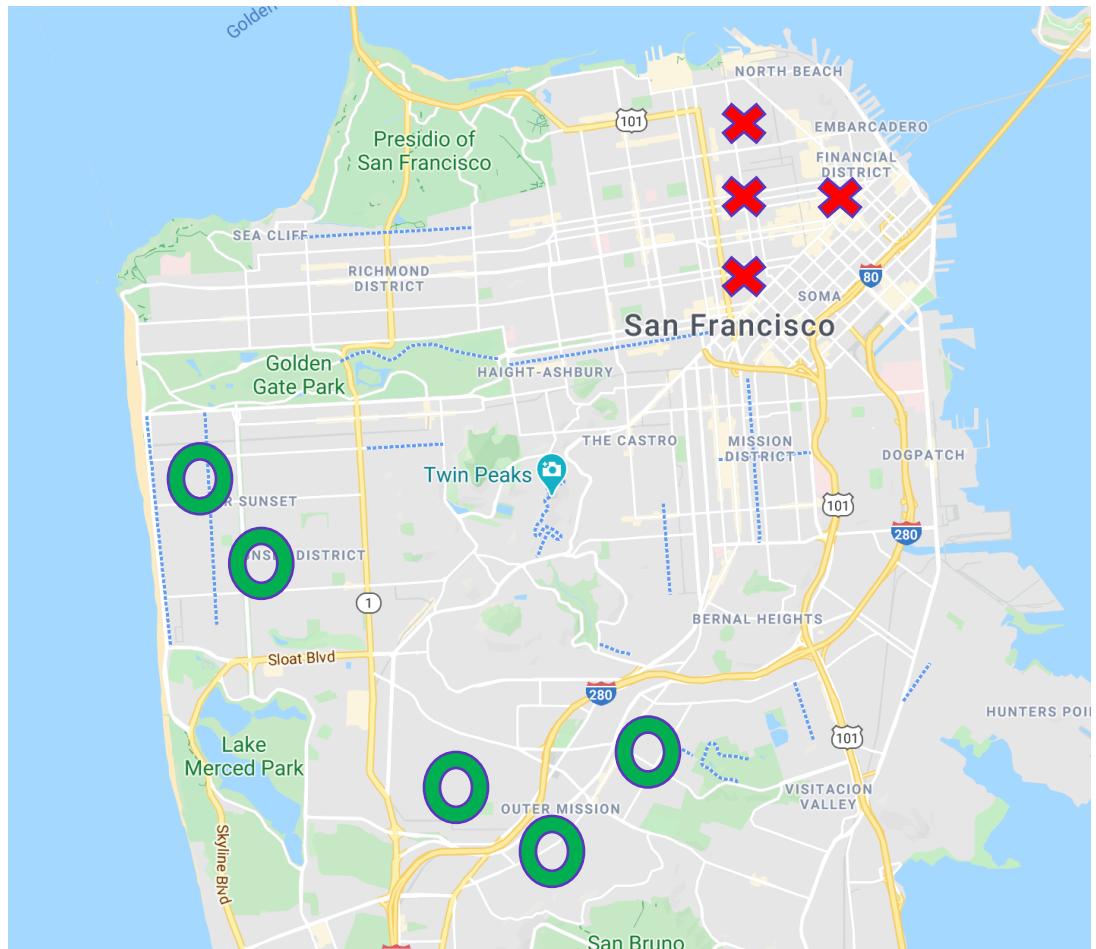
Algorithm & Model

Classification problem:

- Success defined using AUC and Accuracy (achieved AUC of 0.968 and Accuracy of 86.7%)
- Gradient Boosted Decision Tree classifier
- Classified listings into **4 categories**: Very Unpopular, Unpopular, Popular, and Very Popular based on # of reviews per month.

Insights

- Very **residential areas** such as Outer Sunset + Parkside, or Outer Mission + Excelsior + Oceanview tend to have the **most popular listings**.
- Many places within the **downtown area** (FiDi, Nob Hill, Russian Hill, Civic Center) tend to have the **least popular listings**, perhaps due to environmental factors (e.g. cleanliness, lack of parking) or regulatory factors disincentivizing operations.
- **Pricing** (Price, Security Deposit, Cleaning Fee) and **# of Amenities** are highly important features.



Thank you!

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