



AIRBNB CUSTOMER REVIEWS

SENTIMENT ANALYSIS

&

TOPIC MODELING

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MOTIVATION

Hosts

Customers

**Improve the customer
experience**

Positive

- Focus on providing

Negative

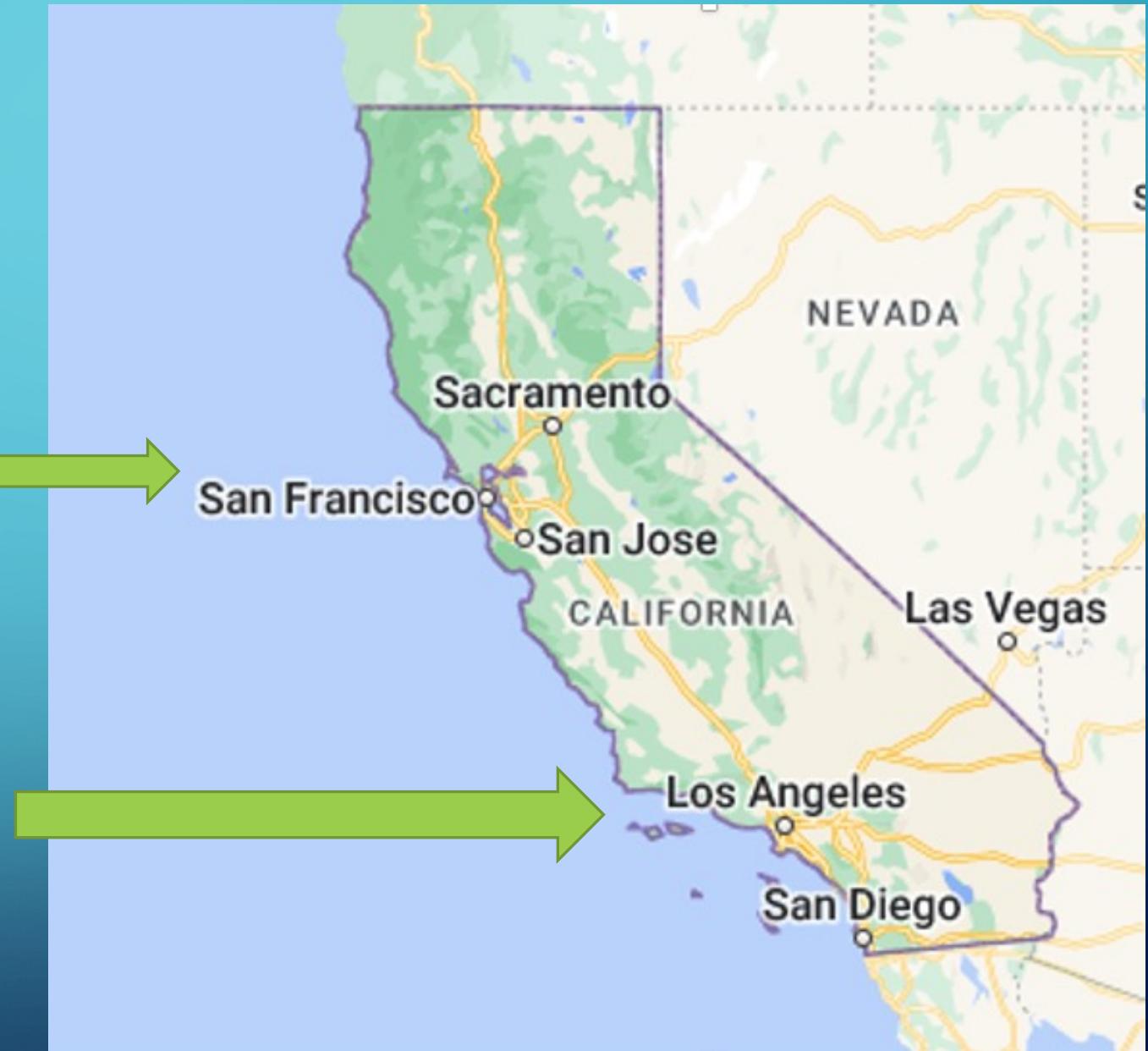
- Take steps to avoid

DATA

San Francisco

Over 1 Million Reviews

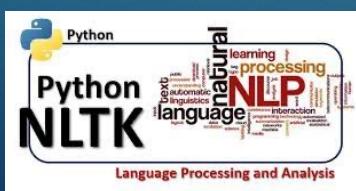
Los Angles



PROCESS & TOOLS

Text Pre-Processing

- Clean
- Tokenization
- Lemmatization



PROCESS & TOOLS

Text Pre-Processing

Sentiment Analysis

- VADER
 - Positive
 - Negative



PROCESS & TOOLS

Text Pre-Processing

Sentiment Analysis

Topic Modeling

- San Francisco
- Los Angeles



SENTIMENT ANALYSIS

Positive
→ 78%

Neutral
→ 15%

Negative
→ 7%

TOPIC MODELING

Non-Negative
Matrix
Factorization
(NMF)

Latent Dirichlet
Allocation (LDA)

Correlation
Explanation
(CorEx)



WHAT MAKES A GOOD HOST?

Hospitality

Communication

Helpful

A word cloud visualization enclosed in a white rectangular border. The words are arranged in three main columns. The left column contains smaller words: 'easy' (green), 'hospitality' (purple), 'spot' (blue), 'hosts' (teal), 'neighborhood' (blue), and 'area' (teal). The middle column contains larger words: 'host' (green) and 'great' (teal). The right column contains words: 'space' (blue), 'house' (green), 'close' (purple), 'view' (green), 'value' (blue), 'time' (teal), 'price' (teal), 'communication' (blue), 'views' (green), and 'amenities' (purple).



WHAT MAKES A GOOD HOST LOCATION?

- Restaurants
- Walking
- Downtown

S.F.

easy walking close area great
space time neighborhood
location
mission downtown
restaurants

- Hollywood
- Beach
- Airport

L.A.

neighborhood great
far airport
location
walk space away
time beach hollywood



WHAT TO AVOID IN YOUR CITY?

- Access
- Street
- Access

S.F.

near access service
neighborhood quick
space parking location
close check street price
downtown

- Distance
- Airport
- Time

L.A.

time far location
easy distance
west within airport
stay great away close



WHAT TO AVOID AS A HOST?

- Cancel
- Bed
- Shower

location
host
stay
mattress
dirty
bad
cancel

host
away
bed
shower
arrival
reservation

FEATURE WORK

- Additional data on detail of property
- More Modeling