



# AIRBNB CUSTOMER REVIEWS

## SENTIMENT ANALYSIS

&

## TOPIC MODELING

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# MOTIVATION

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**Hosts**

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**Customers**

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**Improve the customer  
experience**

## Positive

- Focus on providing

## Negative

- Take steps to avoid

## DATA BY LOCATION

San  
Francisco

Los Angles

# PROCESS & TOOLS

## Text Pre-Processing

- Clean
- Vectorize

## Sentiment Analysis

- Positive
- Negative

## 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)

# SAN FRANCISCO LOCATION

great

location host lots neighborhood

experience close easy value

thanks restaurants host walking city

time space spot communication hosts apartment

L.A.

HOST

easy **host** thanks space  
hospitality house  
spot hosts **great** value time  
neighborhood close view price  
area communication amenities



SAN FRANCISCO

PARKING

near access service  
parking neighborhood quick  
space location closecheck street price  
downtown

San Francisco Negative Reviews

posting reservation  
automated days want home canceled  
place host arrival

## Los Angeles Negative Reviews

everything within  
walking distance  
not to stay  
to spot  
West distance

# FEATURE WORK

- Additional data on detail of property
- More Modeling