How can the effectiveness of marketing 'Airbnb Seattle' be improved?

JLIST Nicole , LÖHR Tim,
BOHNSTEDT Timo, PANG Tsz Ching, and BAL Kiran Jeniffer

City University of Hong Kong

Project Presentation Machine Learning for Business IS4861

December 8, 2019

Overview

1 Background & Motivation

2 Summary

3 Models

4 Data Description

5 Analysis

6 Findings and Impacts

7 Related Work

8 Conclusion

Start of an equally simple business

"Brian thought of a way to make a few bucks - turning our place into *designers bed and breakfast* - offering young designers who come to town a place to cra during the 4 day event, complete with wireless Internet, a small desk space, sleeping mat, and breakfast each morning. Ha! joe"

Basics

Airbnb is a model based on share economy. Everyone who owns an apartment can rent it out for travelers as a resting place, where it feels like home. There is a Mobile app/website: online platform to match demand and supply Listings (check in and check out: demand for short period rent apartment) .

General Methology

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Product, Price, Promotion and Place

Heading

1. Product
2. Price
3. Promotion
4. Place

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

How to use Data Analysis to improve the Airbnb Marketing?

- Lorem ipsum dolor sit amet, consectetur adipiscing elit
- Aliquam blandit faucibus nisi, sit amet dapibus enim tempus eu
- Nulla commodo, erat quis gravida posuere, elit lacus lobortis est, quis porttitor odio mauris at libero
- Nam cursus est eget velit posuere pellentesque
- Vestibulum faucibus velit a augue condimentum quis convallis nulla gravida

Natural Language Processing

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Preprocessing Steps in General

- Lorem ipsum dolor sit amet, consectetur adipiscing elit
- Aliquam blandit faucibus nisi, sit amet dapibus enim tempus eu
- Nulla commodo, erat quis gravida posuere, elit lacus lobortis est, quis porttitor odio mauris at libero
- Nam cursus est eget velit posuere pellentesque
- Vestibulum faucibus velit a augue condimentum quis convallis nulla gravida

Preprocessing Code Example

Example (Our Preprocessing Example)

```
\begin{frame}
\frametitle{Theorem}
\begin{theorem}[Mass--energy equivalence]
$E = mc^2$
\end{theorem}
\end{frame}
```

Listings

- Consist of 92 columns, with attributes describing different characteristics of the rented apartments
- Contains 3818 apartments distributed in 79 Neighborhood

Reviews

- Consist of 92 columns, with attributes describing different characteristics of the rented apartments
- Contains 3818 apartments distributed in 79 Neighborhood

Calendar

- Consist of 92 columns, with attributes describing different characteristics of the rented apartments
- Contains 3818 apartments distributed in 79 Neighborhood

Which facts lessors need to address in their description to raise the interest of potential customer, who 'fit' the vibe of the neighborhood and set their focus on the same aspects as former customers of these apartments?

Block 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Block 2

Pellentesque sed tellus purus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Vestibulum quis magna at risus dictum tempor eu vitae velit.

Which factors did influence the degree of booking of former rented apartments?

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Which price can be charged for an apartment with certain characteristics?

Heading

1 Statement
2 Explanation
3 Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

When can lessors increase the price per night for their apartment and when should they lower it?

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

What is a good point in time to start a marketing campaign?

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Table

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table: Table caption

Theorem

Theorem (Mass–energy equivalence)

$E = mc^2$

Verbatim

Example (Theorem Slide Code)

```
\begin{frame}
\frametitle{Theorem}
\begin{theorem}[Mass--energy equivalence]
$E = mc^2$
\end{theorem}
\end{frame}
```

Table

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table: Table caption

Table

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table: Table caption

Figure

Uncomment the code on this slide to include your own image from the same directory as the template .TeX file.

Citation

An example of the \cite command to cite within the presentation:

This statement requires citation [Smith, 2012].

References

John Smith (2012)

Title of the publication

Journal Name 12(3), 45 − 678.

The End