

ORIE 4741 Project Proposal

Price Suggestion for Airbnb Hosts in NYC

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1 Introduction

Airbnb, an online agency that features to provide local home-stays for visitors. Though established in 2008, this website has become extremely popular among the young people in the past 10 years. Compared to normal hotel stay, which only contains a bedroom and a lavatory, Airbnb provides the customers with cheaper price and more services, such as kitchen availability, spacious room, and maybe breakfast. Besides these facilities, the host can even serve as a personal tour-guide and make recommendations for food and attractions to their customers.

As staying NYC, a city where average hotel prices are as high as 300 dollars per night, the cheap deal on Airbnb makes itself a sound choice for backpackers and visitors. In this project, we would like to study the possible factors that will affect the price of the room. We will understand the Airbnb price strategy in NYC and make better recommendations for Airbnb hosts to set their prices. With our analysis, Airbnb hosts will maximize their profit and not overprice or underprice.

2 Data Set

We would like to use the data set "*New York City Airbnb Open Data*" on Kaggle. This data set contains different information listed below.

- List ID, List Name, Host ID, Host Name
- Neighbourhood, Location, Latitude, Longitude
- Room Type, Price
- Number of Reviews, Last Review, Reviews per month

We believe information such as neighbourhood, room type, and price will allow us to analyze the relationship between price and these factors. By understanding this relationship, we not only can predict the suggested price for new hosts, but also can find outliers in existed data set and provide recommended range for price adjustments.