ASSIGNMENT #1. ANALYZING THE SHARING ECONOMY WITH AIRBNB DATA

Background

In the past few years, the sharing economy has growing in prominence, with platforms such as Airbnb challenging traditional hotel and hospitality industries. This has also lead to broader societal changes such as an putting a strain on rental market and increasing house prices. Yet, much of the conversation about this has been driven by anecdotal evidence (e.g stories by those hurt / helped by Airbnb). In response people have started collecting data on Airbnb to "add data to the conversation" around the sharing economy.

As we were beginning to understand the home sharing economy, COVID happened and travel, tourism, commuting patterns all changed completely. The objective of this assignment is to provide data driven insights into how the sharing economy in Los Angeles has changed after COVID (How does the market look in 2020/2021 in comparison to how it looked in 2018/2019).

This assignment is unstructured by its very nature. I have presented you with a general problem, but it is up to you to focus in on the specific question you are planning to answer, and you are planning to answer it. Start from the goal you are trying to reach, and work towards how you can provide an answer with the data you have been given.

Assignment

Part A) *How has the Airbnb Market in LA Changed after COVID?*

Describe how the Airbnb market has shifted after COVID. It is up to you to decide how you would like to perform this comparison (Will you look at Price of listings, volume of listings, type of listings, location of listings, availability, etc.?). It's also up to you to decide the different groups you can compare (Do you want to compare to previous years, the same months in previous years, the same regions, etc.?).

Deliverable: 2 to 3 slides with a summary of your approach. Do not show python code but attempt to show visualizations or clear figures summarizing your findings. You can include an appendix file with code or any other information you find helpful.

Part B) *What will be the future of Home Sharing in LA?*

Based on these patterns you observe in the data, provide data driven predictions for how you think the home sharing market will look in the future. You may just provide insightful trends, or you may perform forecasting. The key is to provide evidence in the data, either of how the home sharing market has changed, or how you think it may changed.

Deliverable: 2 to 3 slides with a summary of your approach. Do not show python code but attempt to show visualizations or clear figures summarizing your findings. You can include an appendix file with code or any other information you find helpful.

Bonus) What is important for a successful listing Post COVID? (Additional +5%)

This is an optional (bonus) assignment. Can you identify the characteristics that were associated with highly successful listings? It is open to you how you define "success" and what you choose to show.

Deliverable: 2 to 3 slides with a summary of your approach. Do not show python code but attempt to show visualizations or clear figures summarizing your findings. You can include an appendix file with code or any other information you find helpful.

Data

I will be providing you with the following dataset: *Airbnb Listings in the Los Angeles Area (2018 to 2021)*

o   Summary Listings Data [Aggregated data file which should be the starting point for everyone]

o   Detailed Listing Data [Data for Advanced Users]:
   o   Listing Data with Additional Detail
   o   Reviews – Data Table with a row for each Listing and Review
      [Useful to infer number of visits / bookings]
   o   Calendar – Data on when each listing was available.

The Listings data is the most useful dataset. Only move into the reviews / calendar if you have some specific questions that this data can answer and have a plan for how to implement this.

You are welcome to collect others if you find them helpful. You do not need super sophisticated python skills for this assignment. I am not evaluating your ability to perform statistical analysis. I just would like you to get exposed to working with data in a way that is analogous to what our speakers / cases discuss. It should be possible to do whatever you want / need with the python skills that we learned in the Workshops 1 through 4.

Due Dates

o   Part A) Friday Feb 26 @ 5pm
o   Part B) Friday March 19 @ 5pm
o   Bonus) Friday April 2 @ 5pm

Grading

Grade Component	Weight of Total Grade
Part A) *How has the AirBnB Market in LA Changed after COVID?*	10%
Part B) *What will be the future of Home Sharing in LA?*	15%
Bonus) *What is important for a successful listing?*	*Additional +5%*

Grade Rubrics	Weight of Total Grade
Empirical Approach (*Do you have a plausible approach to answer the question?*)	10%
Insights (*Do you arrive at meaningful and informative insights?*)	15%
Style (*Is it clear and well explained?*)	*Additional +5%*