The Battle of Neighborhoods

Best Chinese Restaurant in New York City

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1. Introduction

1.1 Background

New York is a city of superlatives: America's biggest; its most exciting; its business and cultural capitals; the nation's trendsetter. The city seems to pull in the best and the brightest from every corner of the country. The city's ethnic flavor has been nuanced by decades of immigrants whose first glimpse of America was the Statue of Liberty guarding New York Harbor and by large expatriate communities such as the United Nations headquartered there.

New York City comprises 5 boroughs sitting where the Hudson River meets the Atlantic Ocean. At its core is Manhattan, a densely populated borough that's among the world's major commercial, financial and cultural centers.

New York City is experiencing a Chinese food renaissance. Never before have the city's offerings been so diverse. Some even say that New York is living in what's surely just the beginning of a golden age of Chinese food.

1.2 Problem

Mr.Chan is a die-hard foodie coming from Singapore. With a Chinese background, he decides to spend his retire life as a Chinese restaurant owner in New York City. As a Data Science professor himself, he plans to make a proper analysis before he spends all of his lifetime savings.

1.3 Interest

Based on his professional experience and data-sensitive mindset, Mr.Chan decides to focus on the following elements:

- Neighborhood with few Chinese restaurant
- Neighborhood with best rated Chinese food
- ... and ultimately,
- The best place to open a Chinese restaurant in New York.

2. Data Acquisition and Cleaning

2.1 Data Sources

As the restaurant will be located in New York City, the data we are going to use will also revolve around NYC.

2.1.1 Data I:

We will use the New York City Geo Data from here: https://cocl.us/new_york_dataset

2.1.2 Data II:

NYC geo-spacial data will be used and with the help of Folium map and Choropleth maps, it will be easier to understand the locations of various restaurants in NYC visually.

Data source: https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm

2.1.3 Data III:

Foursquare is the last data source (here) we will be leveraging to obtain specific information about restaurants in different neighborhoods of NYC. The API requests will allow Mr.Chan to understand better the popularity of Chinese cuisine in NYC.

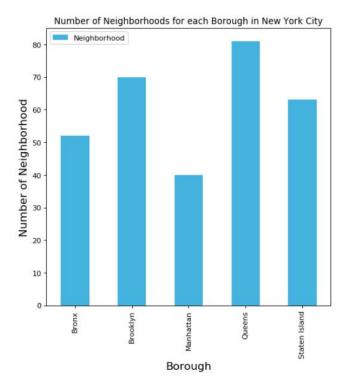
Data Cleaning and Wrangling

- Fetch the data from the sources mentioned above
- Conduct specific requests to obtain relevant information about Chinese cuisines from Foursquare API
- Examine the ratings and reviews of popular Chinese restaurants
- Use Matplotlib and Folium to assist the analysis visually

3. Exploratory Data Analysis

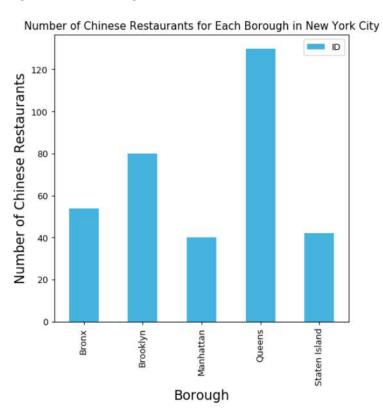
3.1 Number of Neighborhoods in each of the Borough in New York City

First glance at the distribution of neighborhoods among NYC Boroughs. Below bar chart is a visual representation on the neighborhood numbers.



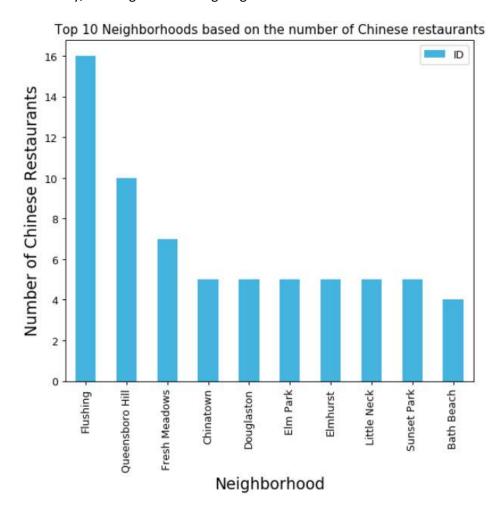
3.2 Number of Chinese Restaurants among each Borough

The Queens have the most number of Chinese restaurants (>120). This shows the competitiveness in this particular Borough before the ratings are taken into consideration.



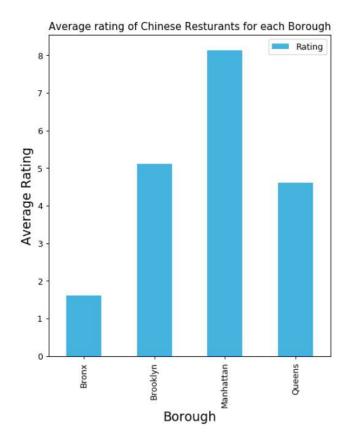
3.3 Neighborhoods that are popular with Chinese restaurants

Now we delve deeper into each neighborhood and examine the number of Chinese restaurants among these. Clearly, Flushing is the leading neighborhood.



3.4 Average rating of Chinese restaurants for each Borough

Now that ratings of each restaurant is considered. Reviews allow us to have a better understanding on the popularity of the shop itself. Manhattan is the borough with the highest rated Chinese restaurant by far.



4. Results

4.1 Top Neighborhood based on average rating

Lower East Side in Manhattan has an average rating of 9.0 based on the data collected and analyzed above.

4.2 Boroughs with the average rating as Choropleth map



5. Discussion

This analysis focuses on the distribution of Chinese restaurants among Neighborhoods and Boroughs in New York City. It then analyzes the popularity of Chinese food among these locations by assessing the ratings of these restaurants.

This allows Mr. Chan to examine the potentials of Chinese cuisine among these neighborhoods and finally make informed decisions when it comes to opening a Chinese food stall in NYC.

6. Conclusion

Based on the data analysis conducted above, we/Mr.Chan now have a better understanding about the distribution of Chinese restaurants in New York. We know now that:

- Lower East Side has the best Chinese restaurants in NYC. It is a good idea to pay a visit to the local markets and explore how they are so successful.
- Bronx in general isn't so fond of Chinese food and Mr.Chan should be careful to choose the location even if the rental fee is lower there.
- Flushing already has a huge amount of Chinese restaurants. It is better not to try competing as Mr.Chan doesn't have much experience opening restaurant in the US.