

Coursera Capstone

IBM Applied Data Science Capstone (Week 4: The Battle of Neighborhoods)

Opening a New Chinese Restaurant in NYC, USA

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(IMAGE SOURCE: WWW.BAIDU.COM)

Introduction

New York City (abbreviated as: NYC), located on the Atlantic coast of southeastern New York State, is the largest city and largest port in the United States. New York is a world-class city that directly influences the global economy, finance, media, politics, education, entertainment and fashion industries. The headquarters of many international organizations, multinational companies and banks in the world, including the United Nations headquarters, are located in New York. As of 2017, New York City has a total area of 1214.4 square kilometers and a population of approximately 8.62 million. The food culture of New York is influenced by many immigrants, so it is very diverse. New York City is also a gathering place for fine restaurants. Common exotic foods in New York City include Italian, French, Spanish, Russian, British, Greek, Moroccan, Chinese, Brazilian, and Japanese dishes.

Business Problem

This project finally explored the best locations for Chinese restaurants throughout New York City. New York is a cosmopolitan city, where people of all nationalities blend together, so it has a long tradition of restaurants of different nationalities. In recent decades, there have been a lot of Chinese tourists and immigrants in New York, so Chinese restaurants are very popular. So if I want to open a new Chinese restaurant in New York, what factors do I need to consider? Everyone understands that the location of a restaurant is one of the most important factors affecting the success or failure of a restaurant. Therefore, it is our project that will try to answer the question "Where should I open a Chinese restaurant in New York?"

The target audience of this project

This project is very beneficial to investors who wish to open or invest in new Chinese restaurants in New York or other international metropolises. New York's population is extremely mobile, with over 10,000 restaurants, and no other city can match it. At the same time, there are also a group of tasteful diners in this city, and many experienced

and imaginative chefs together constitute this colorful gastronomic city. New York Restaurant Those famous chefs in New York work hard, and they create all kinds of magical cuisine. They can make the best food in the world. Although the epidemic has dealt a blow to the catering industry in New York, from a long-term trend, the catering industry in New York will definitely be thriving.

Data

In order to answer the above questions, data on New York City's neighborhoods and administrative districts are needed, including boundaries, latitude, longitude, restaurants, and restaurant ratings and tips. New York City data including neighborhoods and administrative districts, latitude and longitude will be obtained from the data source: https://cocl.us/new_york_dataset. All data related to the location and quality of Chinese restaurants will be obtained through the FourSquare API used by the request library in Python.

Methodology

Data will be collected from https://cocl.us/new_york_dataset and cleaned and processed into a dataframe. FourSquare be used to locate all venues and then filtered by Chinese restaurants. Ratings, tips, and likes by users will be counted and added to the dataframe. Data will be sorted based on "Likes". Finally, the data will be visually assessed using graphing from Python libraries.

Result and discussion

(ps: The specific result chart analysis process can be seen in the notebook)

All the project analysis depends on the accuracy of Four Square data. More comprehensive analysis and future work need to incorporate data from other external databases. Through our various analyses above, we can draw conclusions. Among the

Chinese restaurants in New York, Chinese restaurants in Manhattan and Brooklyn are highly liked on average. At the same time, we got 171 Chinese Restaurants across New York City. From a borough perspective, as we see below, although Manhattan has the least number of neighborhoods(Neighborhoods per Borough: NYC), it has a lot of Chinese restaurants. Brooklyn has the most Chinese restaurants, followed by Queens. From the “Chinese Restaurants per Neighborhood” chart, we can see that Chinatown has the most Chinese restaurants, and Chinatown is located in Manhattan.

Conclusion

Based on the above information, I would like to say that Manhattan and Brooklyn are the best places to eat Chinese food in New York. To get the most benefit, I will open a Chinese restaurant in Brooklyn. Brooklyn has multiple neighborhoods, and the average customer “likes” rate exceeds 30. At the same time, the concentration of Chinese restaurants is less than that of Manhattan's Chinatown. Therefore, opening a Chinese restaurant in Brooklyn is less competitive than opening a Chinese restaurant in Chinatown. It is also very important that real estate prices in Brooklyn are much cheaper than in Manhattan, so the rent and cost of opening a restaurant will be lower than in Chinatown in Manhattan. In summary, my Chinese restaurant will be opened in Brooklyn.