



NEW RESTAURANTS GEOGHRAPGICAL RECOMMENDATIONS

DATA SCIENCE FINAL PROJECT

[Abstract](#)

Geographical recommendations for new Chinese restaurants in New York City

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Introduction

There are more dining establishments and more diners now than during any other time in history; the National Restaurant Association reports over 1 million restaurant locations in the U.S. alone, a particular boon considering more than half the American population visits at least one of them each week.

Here we assume a business owner thinking of opening a new Chinese restaurant in NYC, but has no idea where is the suitable place. It can be even interesting for users who like Chinese cuisine to locate the most rated restaurant.

In this project we will build recommendations for new Chinese restaurants about where to open in New York City, based on the areas with most rated restaurants.

Data sources and preparation

Data sources

Data is collected from:

https://en.wikipedia.org/wiki/New_York_City

https://en.wikipedia.org/wiki/Demographics_of_New_York_City

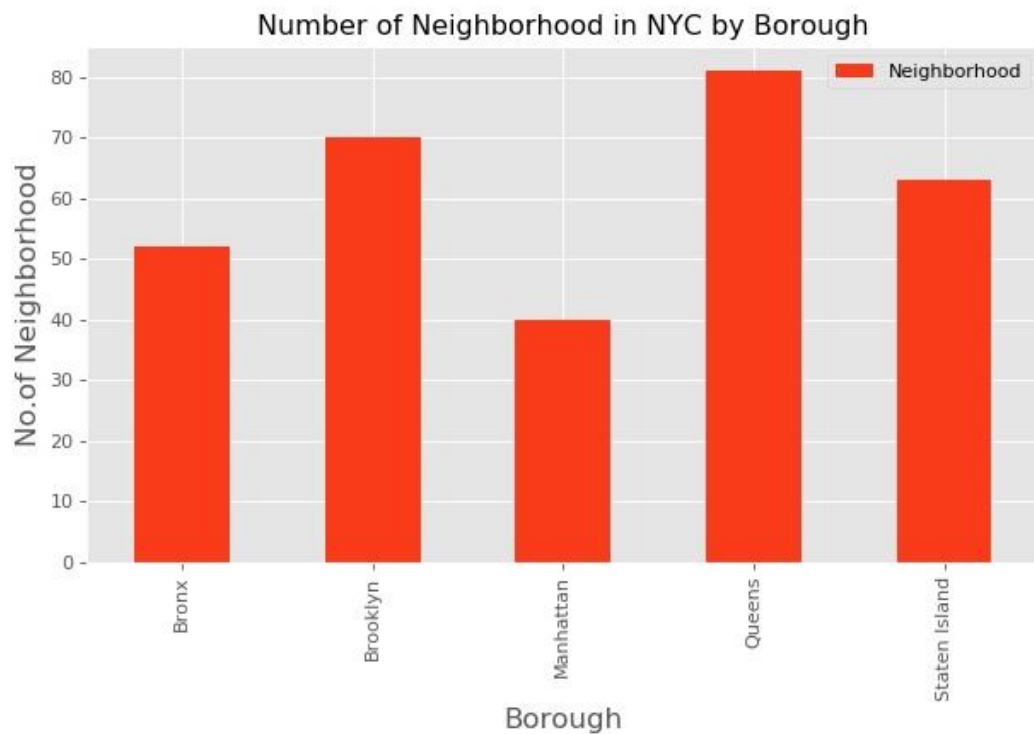
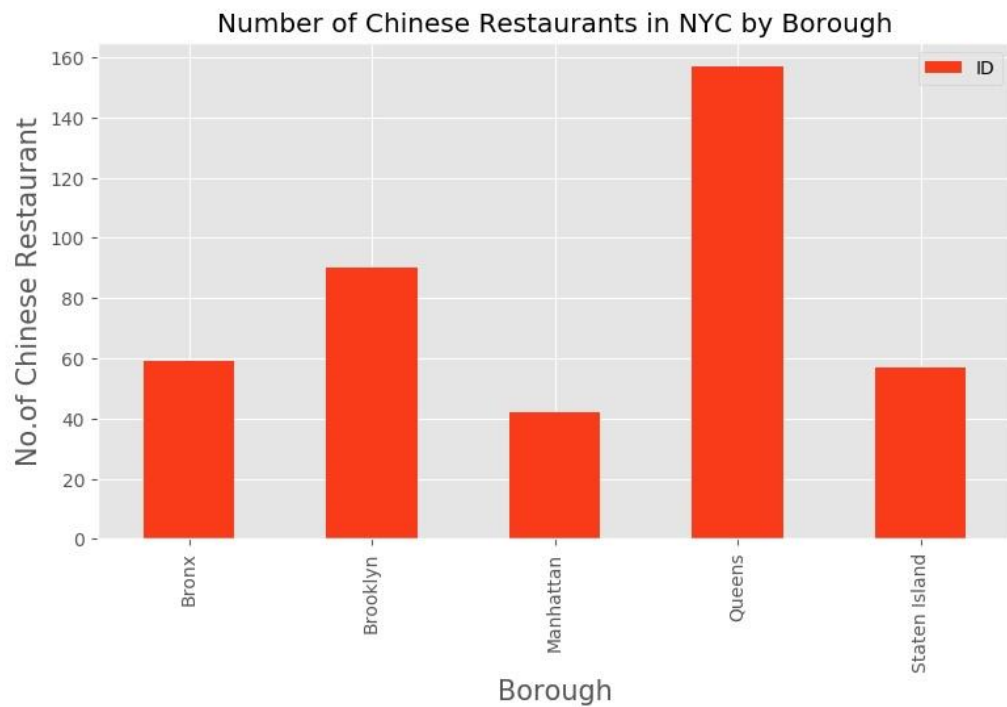
Web scraping techniques is used to get New York population density and demographics data from Wikipedia. Using Foursquare API, these datasets are used to explore various neighborhoods and each restaurants in the neighborhood along with their ratings.

Data preparation

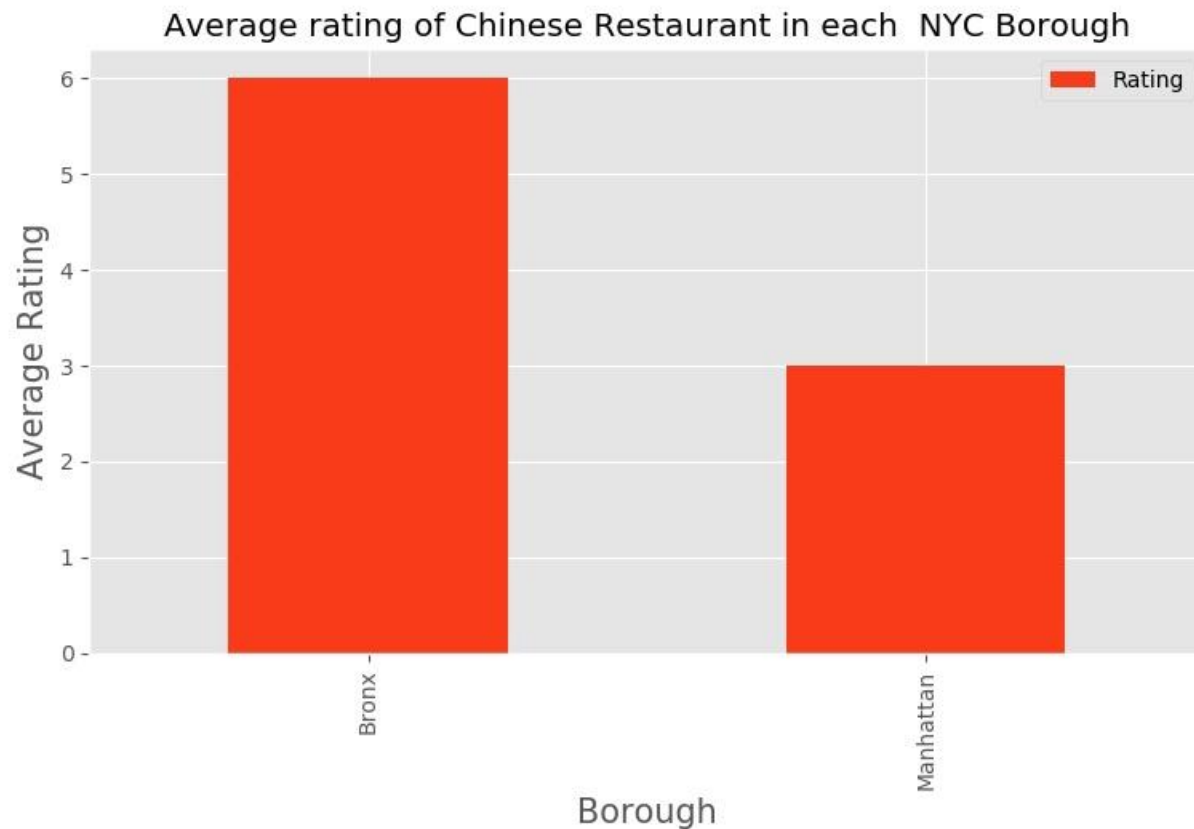
These datasets are cleaned, sorted and merged in order to be used to explore various neighborhoods and each Chinese restaurant venue in the neighborhood.

Methodolgy

Initial observation of data, using bar charts, showed that Queens are both the highest populates and the highest borough in regards of number of Chinese restaurants:



However, after deeper analysis, finding the average rating for restaurants per borough, it was found that Bronx has the highest rated Chinese restaurants in NY:



This takes us to dig deeper to Chinese restaurants in Bronx. After some analysis and data manipulation, we can visualize result so that the business owner can easily take decision upon.

Results

Now we are able to locate the neighborhood with the most rated restaurants on the map, which are Fordham, Melrose, Pelham Parkway and Co-op City.



Conclusion

According to the above map, it is obvious that Fordham or Melrose in Bronx would be the best choices to start a Chinese restaurant according to users' ratings.