

ITALIAN RESTAURANT IN NEW YORK – ANALYSIS





INTRODUCTION

- This final project explores the best locations for Italian restaurants throughout the city of New York. Food Business News stated that worldwide pasta sales were up for the second year in a row with the United States holding the largest market (Donley, 2018). New York is a major metropolitan area with more than 8.4 million (Quick Facts, 2018) people living within city limits. Most of the Italian immigration into the United States occurred during the late 19th and early 20th century with over two million immigrants between 1900 and 1910. Italian families first settled in Little Italy's neighborhood around Mulberry Street as has continued to thrive ever since. With almost 700,000 Manhattan inhabitants reporting Italian ancestry, the need to find and enjoy Italian cuisine is on the rise. This report explores which neighborhoods and boroughs of New York City have the most as well as the best Italian restaurants. Additionally, I will attempt to answer the questions "Where should I open an Italian Restaurant?" and "Where should I stay if I want great Italian food?"



DATA



- In order to answer the above questions, data on New York City neighborhoods, boroughs to include boundaries, latitude, longitude, restaurants, and restaurant ratings and tips are required.
- New York City data containing the neighborhoods and boroughs, latitudes, and longitudes will be obtained from the data source: https://cocl.us/new_york_dataset
- New York City data containing neighborhood boundaries will be obtained from the data source: <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>
- All data related to locations and quality of Italian restaurants will be obtained via the FourSquare API utilized via the Request library in Python.



METHODOLOGY

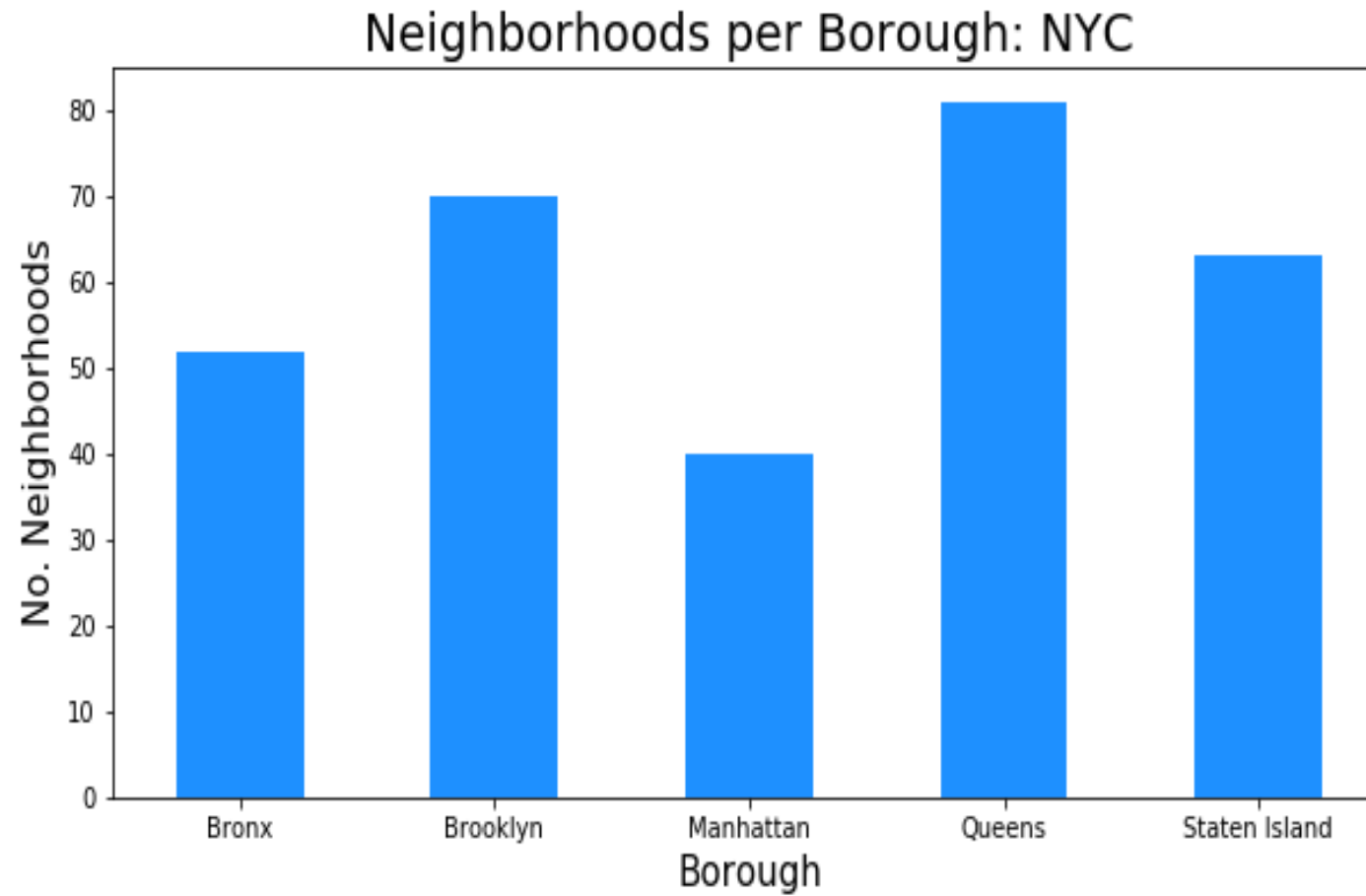
- • Data will be collected from https://cocl.us/new_york_dataset and cleaned and processed into a dataframe.
- • FourSquare be used to locate all venues and then filtered by Italian restaurants. Ratings, tips, and likes by users will be counted and added to the dataframe.
- • Data will be sorted based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



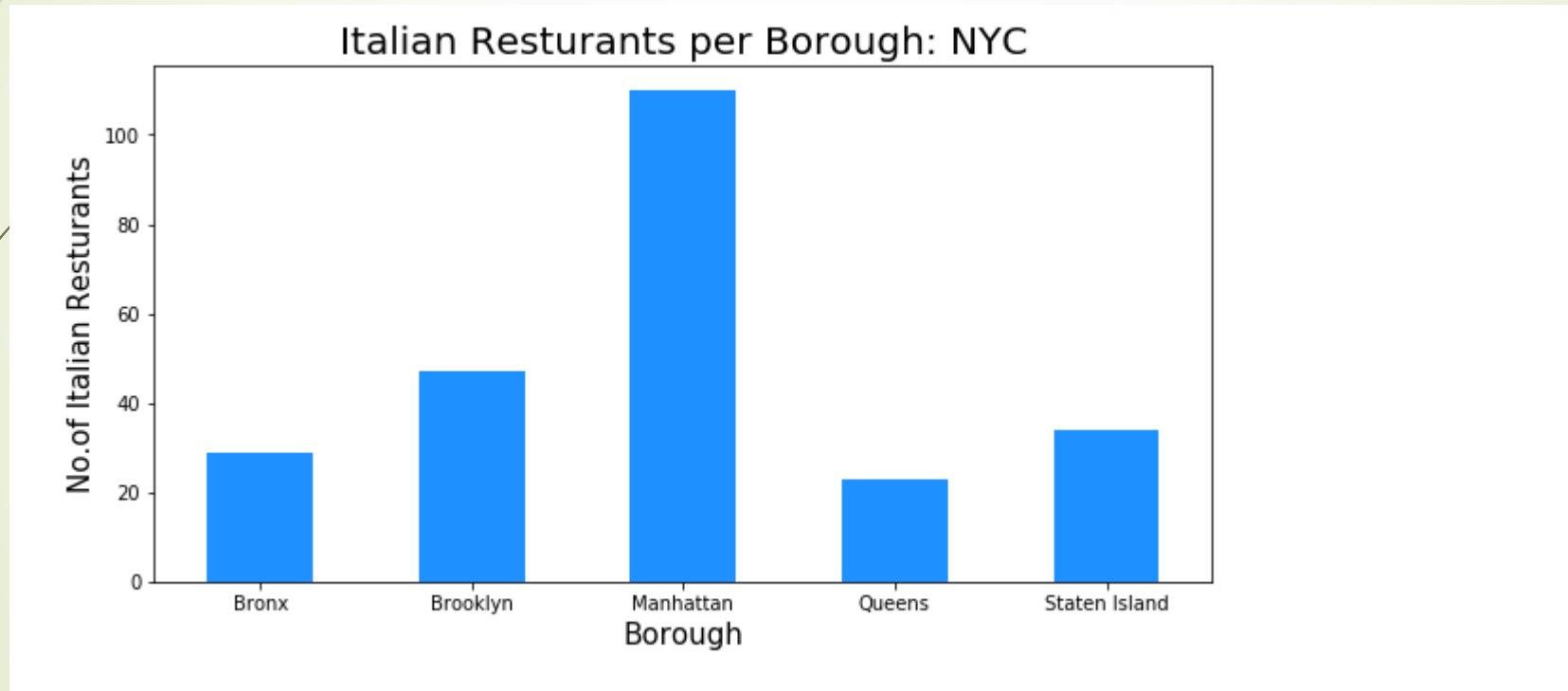
Problem Statement

- What is / are the best location(s) for Italian cuisine in New York City?
- In what Neighborhood and/or borough should I open an Italian restaurant to have the best chance of being successful?
- Where would I go in New York City to have the best Italian food?

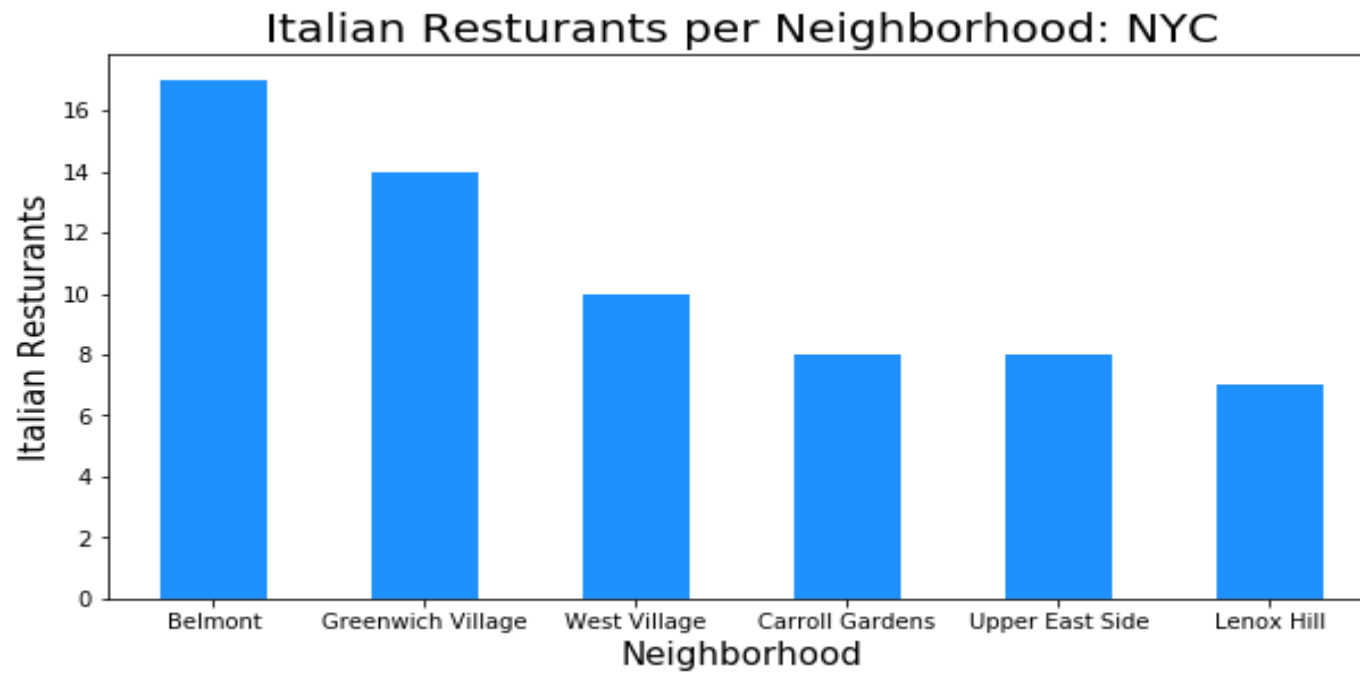
We can see below that Manhattan has the least number of neighborhoods in all five boroughs.



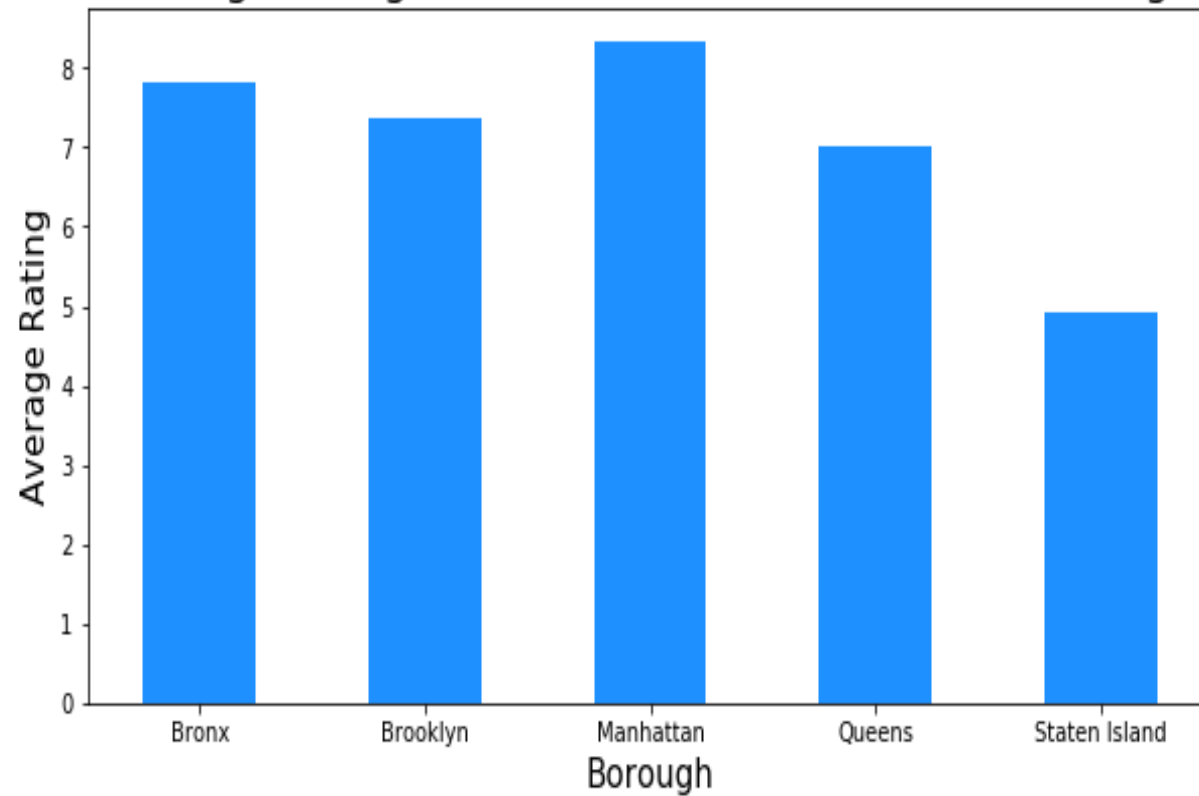
As we continue our analysis, we see below that although Manhattan had the least number of neighborhoods, it does have the highest number of Italian restaurants. Additionally, we see how many restaurants the top 6 neighborhoods have. The neighborhood of Belmont has the highest number of Italian restaurants in all of NYC and is actually located in the borough of Bronx vice Manhattan.



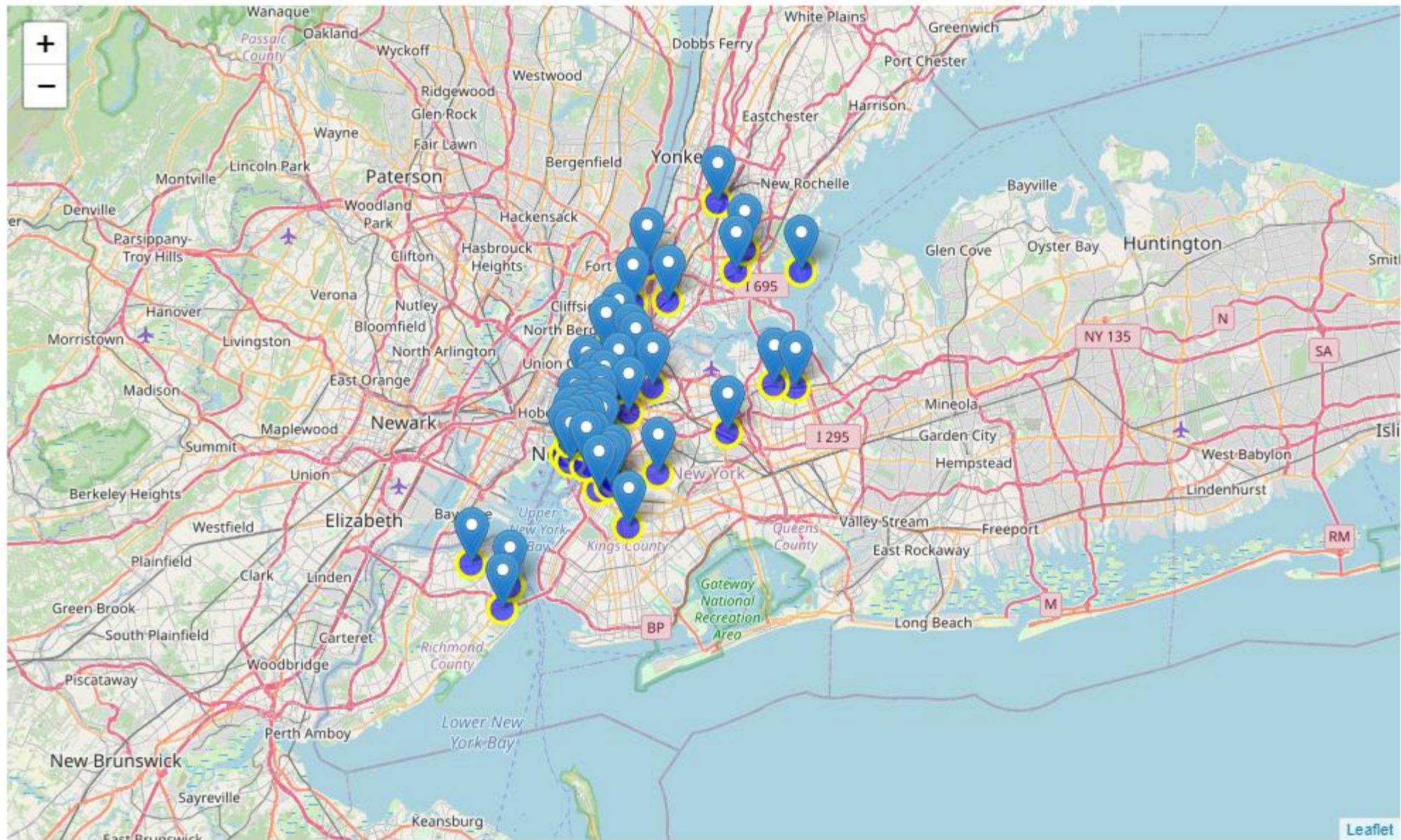
Italian Restaurants per Neighborhood: NYC



Average rating of Italian Resturants for each Borough



We will visually map the neighborhoods with an average rating greater than or equal to 8 after joining the appropriate dfs to include latitudes and longitudes.





Discussion section

- Now remember that because we are using a personal developer account, then we can access only 2 of the restaurant's tips, instead of all 15 tips.
- when you run the above code, you might get different venues since the venues with the highest foot traffic are fetched live.
- Now that we have our initial data, lets start analyzing it. We can see below that Manhattan has the least number of neighborhoods in all five boroughs.
- This report explores which neighborhoods and boroughs of New York City have the most as well as the best Italian restaurants.



Results / Conclusion

Manhattan and Queens have the best rated Italian restaurants on average. Queens and The Bronx have the least amount of Italian restaurants per borough. However, of note, Belmont of The Bronx is the neighborhood in all of NYC with the most Italian Restaurants. Despite Manhattan having the least number of neighborhoods in all five boroughs, it has the most Italian restaurants. Based on this information, I would state that Manhattan and Queens are the best locations for Italian cuisine in NYC. To have the best shot of success, I would open an Italian restaurants in Queens. Queens has multiple neighborhoods with average ratings exceeding 8.0 of a scale of 1.0 to 10.0 and has the least number of Italian restaurants making competition easier than in other boroughs. Finally, I would go to Gramercy in Manhattan for the best Italian food based on 131 likes. As a final note, all of the above analysis is depended on the adequacy and accuracy of Four Square data. A more comprehensive analysis and future work would need to incorporate data from other external databases.