

# The Battle of the Neighborhoods

Gopal Nath  
Part 1 & part 2

## Introduction/Business Problem

I am a data scientist. I live in Atlanta, Ga. I currently live within walking distance to Downtown and I enjoy many amenities and venues in the area, such as various international cuisine restaurants, cafes, food shops and entertainment. Recently I got a job offer in New York. So the main question here is : How would I find a convenient and enjoyable place similar to Atlanta City?

I have some criteria to choose apartment:

- apartment must be 1 bedroom
- desired location is near a metro station
- price of rent not exceed \$ 1300 per month
- Top amenities in the selected neighborhood should be similar to Atlanta

The challenge is to find a suitable apartment for rent in New York City that complies with the demands on location, price and venues.

## Data Section

The data to be used for this project comes from two different locations:

- Foursquare. It is a local search-and-discovery service which provides information on different types of entertainment, drinking and dining venues.

Foursquare has an API that can be used to query their database and find information related to the venues, such as location, overall category, reviews and tips.

- New York City Neighborhood Names and geographic coordinates. Data available on [https://geo.nyu.edu/catalog/nyu\\_2451\\_34572](https://geo.nyu.edu/catalog/nyu_2451_34572)
- Atlanta, Ga City Neighborhood Names and geographic coordinates. Data available on <http://research.library.gsu.edu/c.php?g=115543&p=752807>

The data will be used as :

- Use Foursquare and geopy data to map top 10 venues for all New York neighborhoods and clustered in groups
- Use foursquare and geopy data to map the location of subway metro stations , separately and on top of the above clustered map in order to be able to identify the venues and amenities near each metro station, or explore each subway location separately
- Use Foursquare and geopy data to map the location of rental places, in some form, linked to the subway locations.
- Data will be searched in open data sources if available, from real estate sites if open to reading, libraries or other government agencies such as Metro New York.

Success Criteria: The success criteria of the project will be a good recommendation of borough/Neighborhood choice to – Company Ltd based on Lack of such restaurants in that location and nearest suppliers of ingredients.

For the 2nd Week:

**Methodology**

**Results**

**Discussion**

**Conclusion**