



Capstone Project - The Battle of Neighborhoods

Where to open a Bar-B-Que(BBQ) restaurant in North Texas?

Data section

I will use the FourSquare API to collect data about locations of BBQ restaurants in 4 US cities in North Texas: Fort Worth, Dallas, Arlington, Burleson. In order to answer the above question, data on BBQ restaurants, city density for BBQ restaurants, latitude, longitude, restaurants, are required.

All data related to locations will be obtained via the FourSquare API utilized via the Request library in Python.

Methodology

My project will assess which city has the best location for opening a BBQ restaurant. I used the Four Square API through the venues channel. I used the near query to get venues in the cities. Also, I use the CategoryID to show only BBQ restaurants. An Example of my request:

```
https://api.foursquare.com/v2/venues/explore?
&client_id=&client_secret=&v=20180605&New
York,NY&limit=100&categoryId=4bf58dd8d48988d1df9e1735
```

4bf58dd8d48988d1df931735 is the Id of the BBQ Category. Also, Foursquare returns a maximum of 100 venues per query.

Moreover, I repeated this request for the 4 cities and got their top 100 venues. I saved the name and coordinate data only from the result and plotted them on the map for visual inspection.

Next, to get an indicator of the location of the BBQ restaurants, I calculated a center coordinate of the venues to get the mean longitude and latitude values. Then I calculated the mean of the Euclidean distance from each venue to the mean coordinates. That was my indicator; mean distance to the mean coordinate.