

Capstone Project

The Battle of the Neighborhoods

Jiajie Li

July 17, 2019

Business Problem

Choose a good location for an Italian restaurant in Toronto

Criteria that are considered to be important:

- not already crowded with restaurants
- no Italian restaurants in vicinity
- as close to Downtown Toronto as possible
- close to the neighborhoods whose residents live Italian food

Data acquisition and cleaning

Data required

- Names and locations of neighborhoods in Toronto
- number of existing restaurants in the neighborhood (any type of restaurant)
- number of and distance to Italian restaurants in the neighborhood, if any

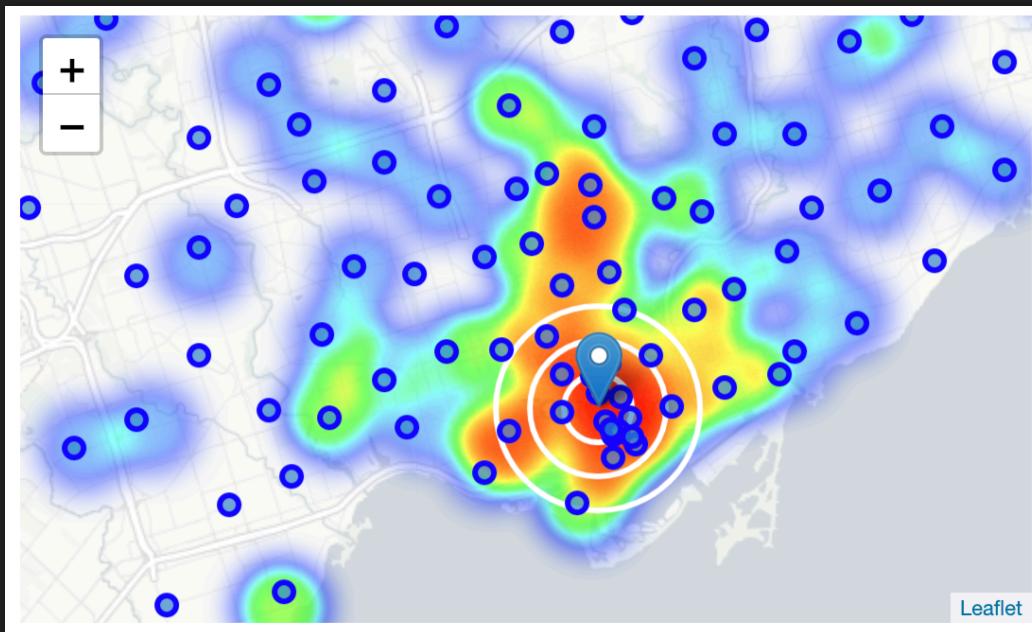
Data acquisition

- Name and postal code of all neighborhoods in Toronto by scraping the Wikipedia page
- geographical coordinates of the neighborhoods using the **CSV file provided by IBM**
- coordinate of Toronto will be obtained using **Foursquare API**
- number of restaurants and their type and location in every neighborhood will be obtained using **Foursquare API**

Data cleaning

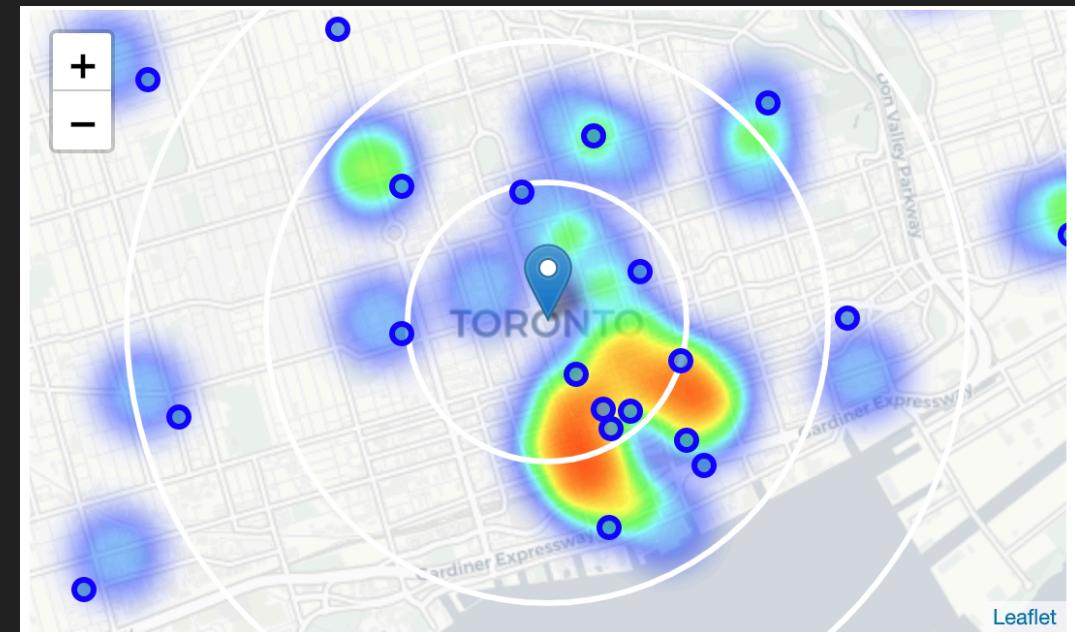
- “not assigned” rows were dropped
- Rows with same postal code were combined
- The geographical coordinates of each postal code were added using the csv file provided by IBM

Exploratory Data Analysis



Density of restaurants in Toronto

651 Restaurants



Density of Italian restaurants in Toronto

60 Italian Restaurants

Candidate Neighborhoods

- 0 Restaurants within 400m of the center
- the distance to the closest Italian restaurant is further than 3km
- residents in these neighborhoods like Italian Restaurant

Targeted

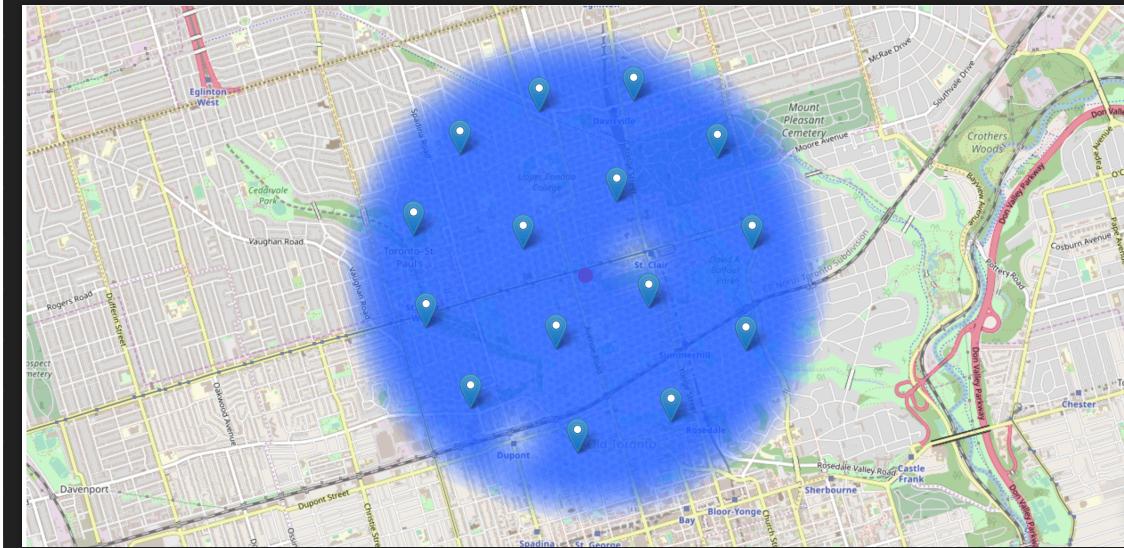
Postcode	Borough	Neighborhood	Restaurants in area	Distance to Italian restaurant	Italian restaurants in the Top 10 venues
1 M1C	Scarborough	Highland Creek, Rouge Hill, Port Union	0	17128.57181	TRUE
26 M3B	North York	Don Mills North	0	3308.440237	TRUE
49 M4V	Central Toronto	Deer Park, Forest Hill SE, Rathnelly, South Hill	0	3084.504403	TRUE
73 M6C	York	Humewood-Cedarvale	0	3703.697054	TRUE
74 M6E	York	Caledonia-Fairbanks	0	4047.503205	TRUE
97 M9M	North York	Emery, Humberlea	0	7061.250453	TRUE

Targeted Neighborhoods

Deer Park, Forest Hill SE, Rathnelly and South Hill

15 potential Addresses

- 30, Hillsboro Avenue, Yorkville, University—Rosedale
- 438, Russell Hill Road, Forest Hill, Toronto—St. Paul's
- 134, Inglewood Drive, Moore Park, University—Rosedale
- 97, Wells Hill Avenue, St. Clair West, Toronto—St. Paul's
- 16, Oriole Gardens, Deer Park, Toronto—St. Paul's
- 30, Woodlawn Avenue West, University—Rosedale
- 584, Davenport Road, Tarragon Village, Toronto—St. Paul's
- 7, Thornwood Road, Rosedale, University—Rosedale
- oliver mowat, 1, Moore Avenue, Moore Park, University—Rosedale
- 188, Heath Street West, Forest Hill, Toronto—St. Paul's
- 71, Davisville Avenue, Chaplin Estates, Toronto—St. Paul's
- 33, Russell Hill Road, South Hill, Toronto—St. Paul's
- 29, Millbank Avenue, Forest Hill, Toronto—St. Paul's
- 99, Admiral Road, The Annex, University—Rosedale
- 121, Chaplin Crescent, Chaplin Estates, Toronto—St. Paul's



Conclusion and future directions

Conclusion

- Deer Park, Forest Hill SE, Rathnelly and South Hill
 - low number of restaurants
 - No Italian restaurants nearby
 - Residents loves Italian cuisine

Idea included

- attractiveness of each location (proximity to park or water)
- levels of noise / proximity to major roads
- real estate availability
- Prices
- social and economic dynamics of every neighborhood