



# POSSIBLE LOCATIONS FOR AFRICAN RESTAURANT IN TORONTO

# Background



- ▶ Toronto is a major Canadian commercial city
- ▶ large population with significant African migrant.
- ▶ African residents are projected to increase significantly
- ▶ increase in demand for African dishes.

# Problem

- ▶ Data needed for this project are:
- ▶ Their location,
- ▶ the type of restaurant
- ▶ number of restaurant in a neighborhood.
- ▶ Foursquare location data
- ▶ and machine learning to find appropriate neighborhoods in Toronto where new African restaurant can be located.

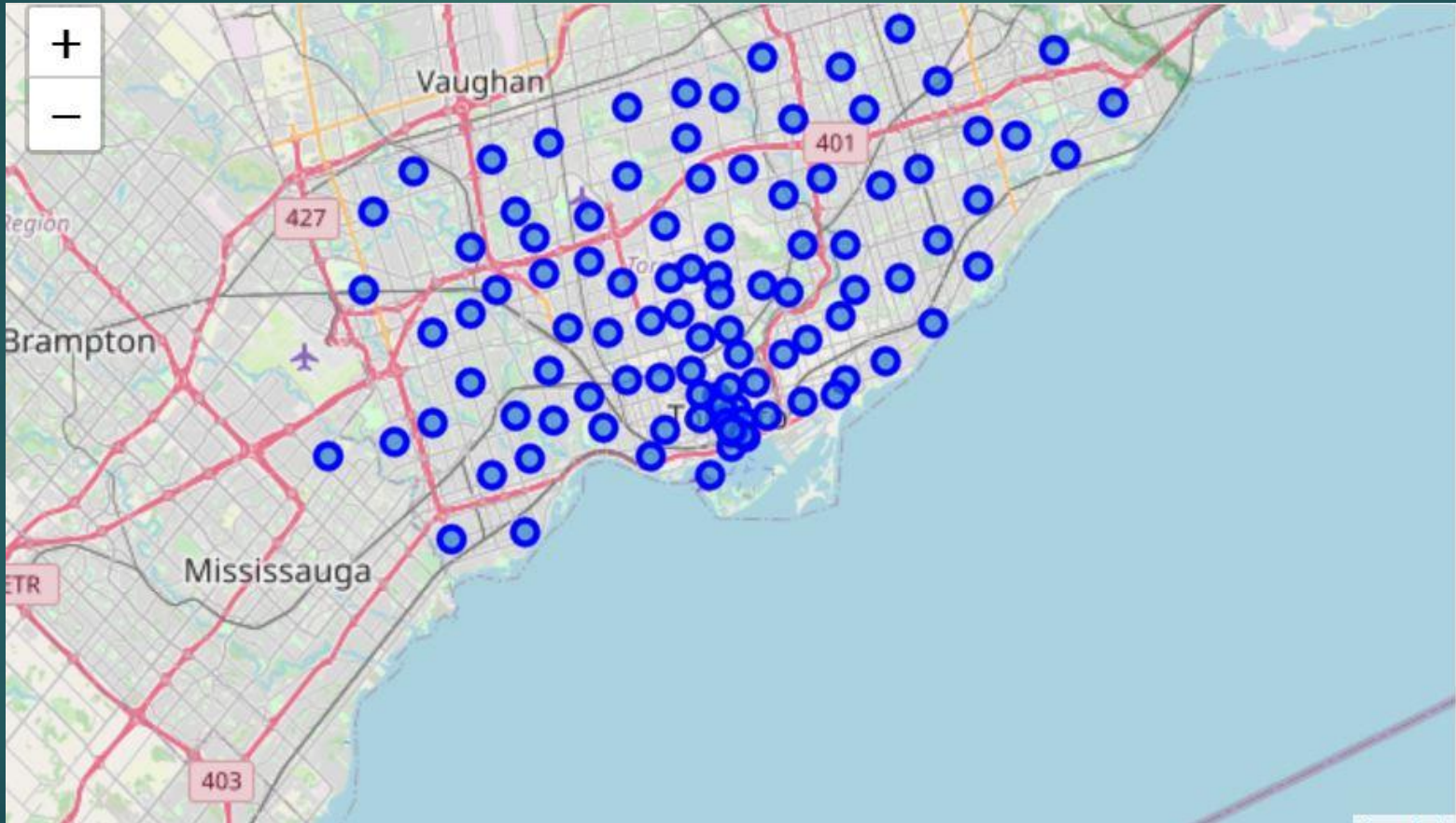
# Who should be Interested?

- ▶ This project is for those who plan to start restaurant in Toronto.
- ▶ choice of neighborhood site
- ▶ Recommending neighborhood with less concentration of restaurants.
- ▶ guide to the best neighborhood with the possibility of high demands
- ▶ and high demands for African dishes.

## SOME Toronto Borough And Their Latitude And Longitude:

	Post Code	Borough	Neighborhood	Latitude	Longitude
0	M3A	North York	Parkwoods	43.753259	-79.329656
1	M4A	North York	Victoria Village	43.725882	-79.315572
2	M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636
3	M6A	North York	Lawrence Manor, Lawrence Heights	43.718518	-79.464763
4	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494

# : Map of Toronto Neighborhood



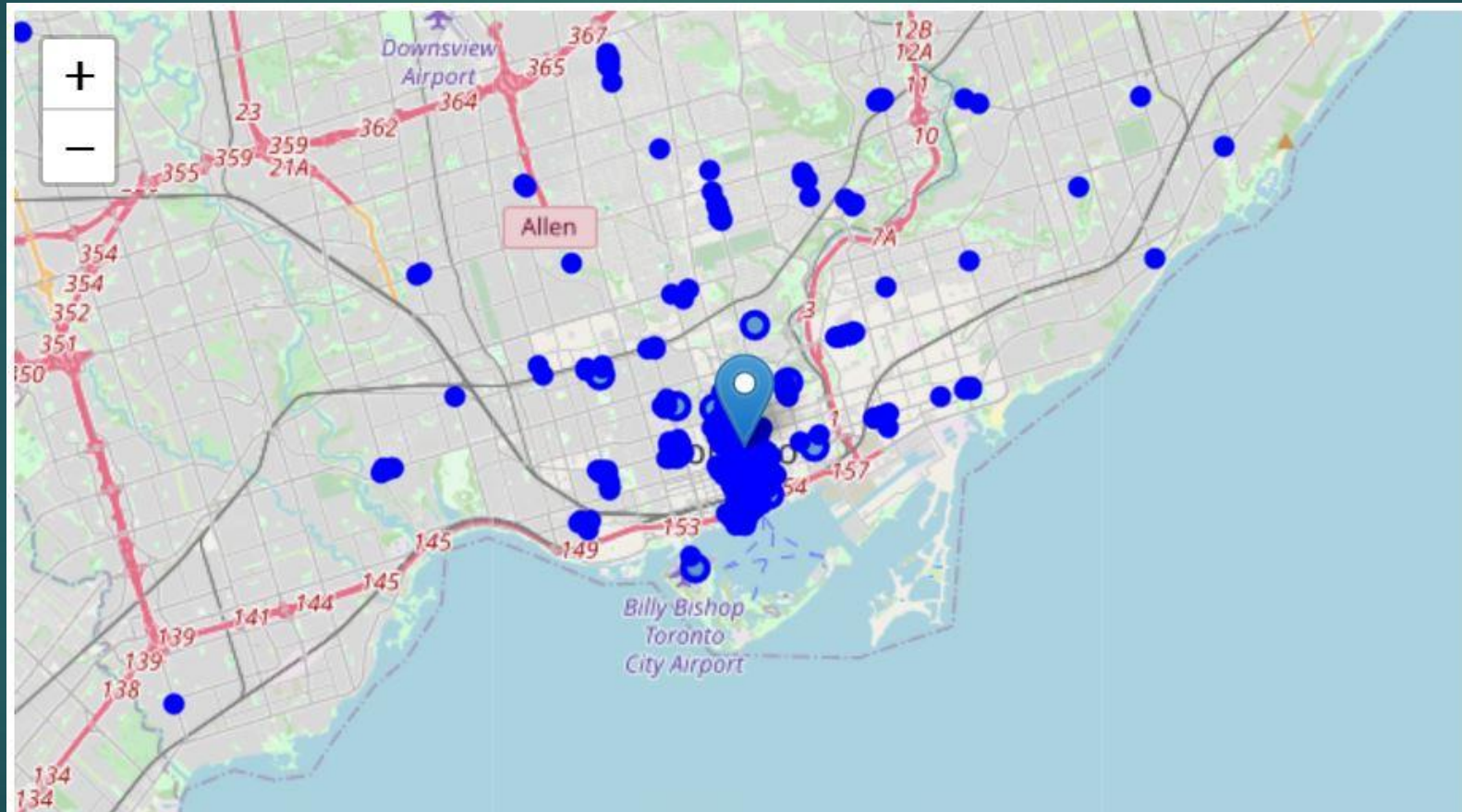


# RESULTS AND DISCUSSION

## Result analysis :

- ▶ shows some neighborhood in Toronto have high restaurant distributions while others have little or no restaurant.
- ▶ Seven neighborhoods were identified to have low restaurant distribution in Downtown Toronto.
- ▶ Toronto Boroughs have on only two identified African restaurants.

# Map of Restaurant Locations in Toronto





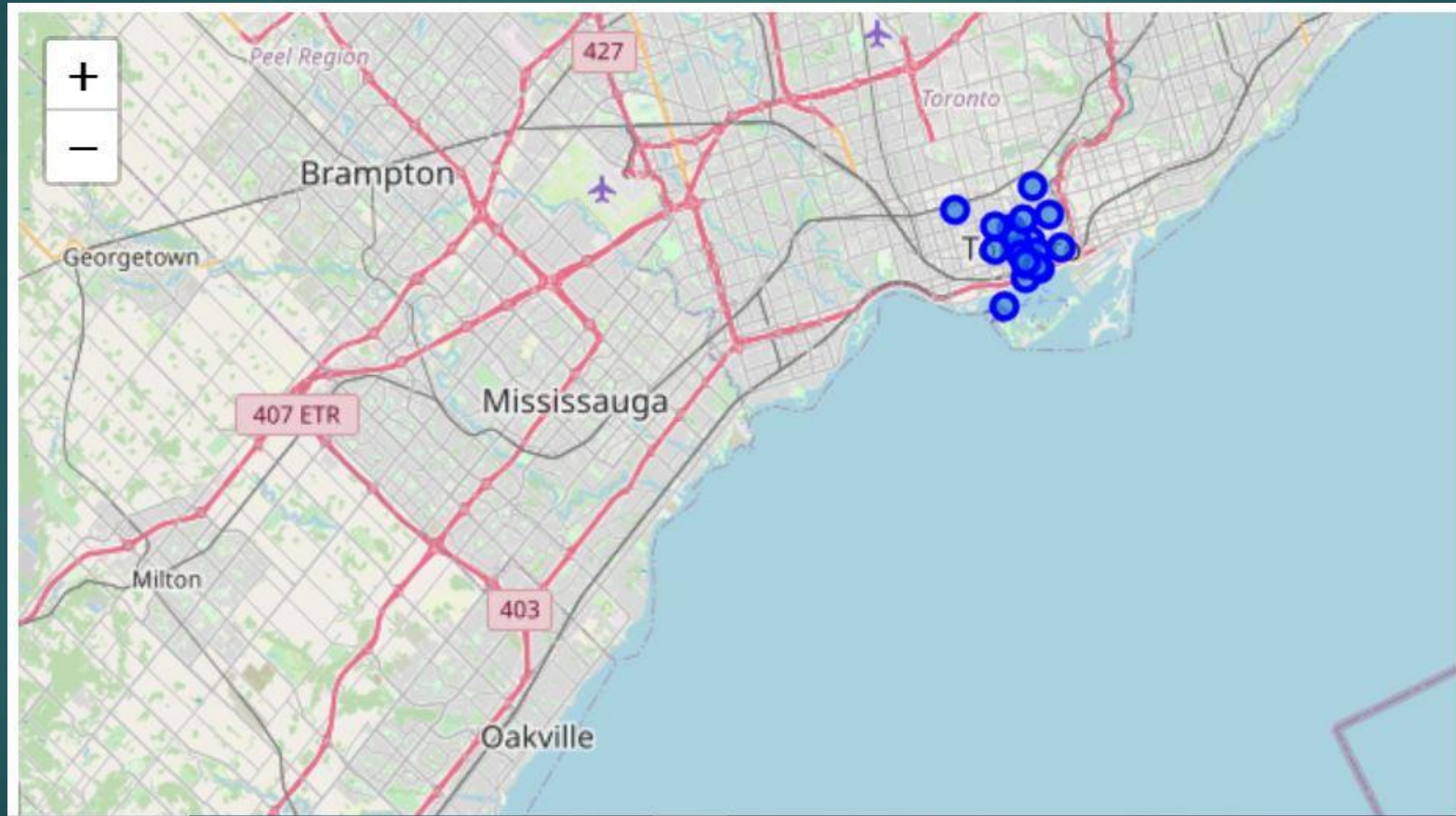
# Toronto Borough with low number of Restaurants :

	Post Code	Borough	Neighborhood	Latitude	Longitude	Restaurants in area
0	M3A	North York	Parkwoods	43.753259	-79.329656	0
1	M4A	North York	Victoria Village	43.725882	-79.315572	2
2	M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636	0
3	M6A	North York	Lawrence Manor, Lawrence Heights	43.718518	-79.464763	0
4	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494	2
5	M9A	Etobicoke	Islington Avenue, Humber Valley Village	43.667856	-79.532242	0
6	M1B	Scarborough	Malvern, Rouge	43.806686	-79.194353	0

## Downtown Toronto Restaurant Distribution

	Post Code	Borough	Neighborhood	Latitude	Longitude	Restaurants in area
0	M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636	0
1	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494	2
2	M5B	Downtown Toronto	Garden District, Ryerson	43.657162	-79.378937	26
3	M5C	Downtown Toronto	St. James Town	43.651494	-79.375418	12
4	M5E	Downtown Toronto	Berczy Park	43.644771	-79.373306	3
5	M5G	Downtown Toronto	Central Bay Street	43.657952	-79.387383	14
6	M6G	Downtown Toronto	Christie	43.669542	-79.422564	2
7	M5H	Downtown Toronto	Richmond, Adelaide, King	43.650571	-79.384568	31
8	M5J	Downtown Toronto	Harbourfront East, Union Station, Toronto Islands	43.640816	-79.381752	15
9	M5K	Downtown Toronto	Toronto Dominion Centre, Design Exchange	43.647177	-79.381576	30
10	M5L	Downtown Toronto	Commerce Court, Victoria Hotel	43.648198	-79.379817	31
11	M5S	Downtown Toronto	University of Toronto, Harbord	43.662696	-79.400049	4
12	M5T	Downtown Toronto	Kensington Market, Chinatown, Grange Park	43.653206	-79.400049	19
13	M5V	Downtown Toronto	CN Tower, King and Spadina, Railway Lands, Har...	43.628947	-79.394420	0
14	M4W	Downtown Toronto	Rosedale	43.679563	-79.377529	0
15	M5W	Downtown Toronto	Stn A PO Boxes	43.646435	-79.374846	17
16	M4X	Downtown Toronto	St. James Town, Cabbagetown	43.667967	-79.367675	9
17	M5X	Downtown Toronto	First Canadian Place, Underground city	43.648429	-79.382280	38
18	M4Y	Downtown Toronto	Church and Wellesley	43.665860	-79.383160	17

# Map of Restaurant clustering in Downtown Toronto

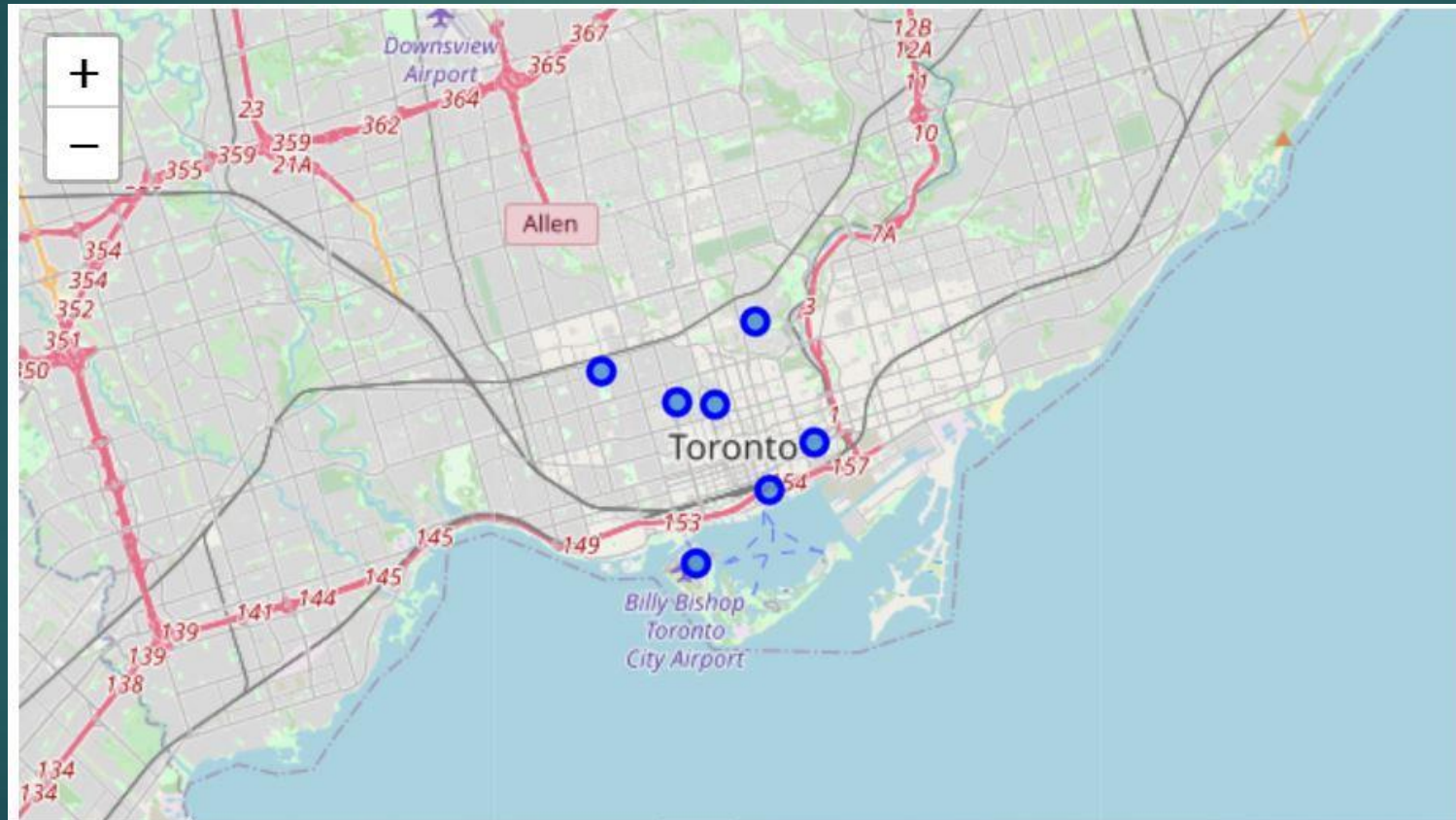




# Recommended Neighborhoods for African Restaurant

	Code	Borough	Neighborhood	Latitude	Longitude	in area
0	M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636	0
1	M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494	2
2	M5E	Downtown Toronto	Berczy Park	43.644771	-79.373306	3
3	M6G	Downtown Toronto	Christie	43.669542	-79.422564	2
4	M5S	Downtown Toronto	University of Toronto, Harbord	43.662696	-79.400049	4
5	M5V	Downtown Toronto	CN Tower, King and Spadina, Railway Lands, Har...	43.628947	-79.394420	0
6	M4W	Downtown Toronto	Rosedale	43.679563	-79.377529	0

# Map of Recommended Locations





# CONCLUSION

- ▶ Purpose of this project was to:
- ▶ locate borough in Toronto with low number of restaurants
- ▶ locate an African restaurant.
- ▶ Foursquare APi was used to identify all the restaurant in Toronto.
- ▶ The boroughs were then further divided to areas with low and high number of restaurants.
- ▶ The region of low number of restaurant in Downtown Toronto was further analyzed to identify optimal locations.

# Remark

- ▶ The investor is expected to carry out feasibility studies to determine suitability of recommended locations
- ▶ The study also showed that Foursquare API may not have adequately identified African Restaurants in Toronto
- ▶ as search for African restaurant in google identified more than two restaurant Foursquare API returned.
- ▶ This may be due to bias
- ▶ or African restaurant in Toronto may have a low standard that made them not to be classified properly.