Battle of the Neighborhoods of Toronto

Introduction/Business Problem

- The company I am working for is looking to open a restaurant in the city of Toronto. So im going to leverage the oursqaure data for Toronto city and find a area where there is a large community of residents, easy access to transportation and less competitors

- **Target an audience:** For any company (Small business or large franchises) looking to open a restaurant or cafe in Toronto city.

Description of the data

- Boroughs, Postal code, neighborhoods of Toronto

- Geo locations for each postal code

- Subway metro stations and their geolocation

- Apartments/houses in each neighborhood with their details and geolocation

- venues for each neighborhood and subway metro stations

How the data was used to solve the problem

- Use geopy and Foursquare for venue and geolocation data to map/cluster all the top 10 venues, subway metro stations for Toronto downtown to get a better understanding of all the venues/ammenities near each subway station for analysing accesibility

- Map/cluster the rental apartments for Toronto downtown to view the average number of apartments in a set radius around each subway station

Potential questions to analysis

- what is the number of apartments near each subway metro station in Toronto downtown?
- What are the venues of the two best places cross to metro station with apartments?
- How venues distributed in Toronto downtown around metro stations?

Using geopy and Foursquare obtained the geolocation data for Toronto downtown

	Postal code	Borough	Neighborhood	Latitude	Longitude
0	M4W	Downtown Toronto	Rosedale	43.679563	-79.377529
1	M4X	Downtown Toronto	St. James Town / Cabbagetown	43.667967	-79.367675
2	M4Y	Downtown Toronto	Church and Wellesley	43.665860	-79.383160
3	M5A	Downtown Toronto	Regent Park / Harbourfront	43.654260	-79.360636
4	M5B	Downtown Toronto	Garden District, Ryerson	43.657162	-79.378937

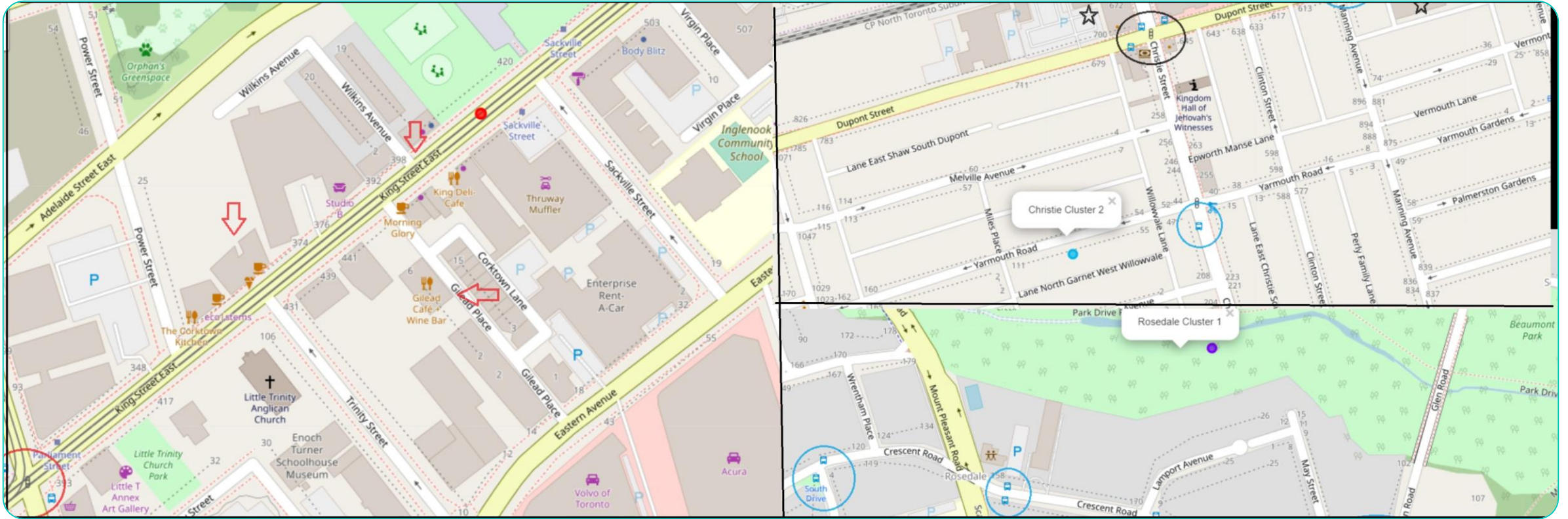# Visualized all the different neighborhoods in downtown Toronto

Analysisng the top 9 venues in each of the neighborhoods for downtown Toronto to understand which neighborhoods have lesser restaurants and have parks

As seen Rosedale, Christie and Regent park have a parks in their common venues, have lesser resturants and bars. This makes these three locations potential restaurant spot

Neighborhood	Latitude	Longitude	Cluster Labels	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue
Rosedale	43.679563	-79.377529	1	Park	Trail	Playground	Yoga Studio	Dance Studio	Dumpling Restaurant	Donut Shop	Doner Restaurant	Dog Run
St. James Town / Cabbagetown	43.667967	-79.367675	0	Coffee Shop	Italian Restaurant	Chinese Restaurant	Restaurant	Bakery	Café	Park	Pub	Pizza Place
Church and Wellesley	43.665860	-79.383160	0	Coffee Shop	Japanese Restaurant	Gay Bar	Sushi Restaurant	Restaurant	Yoga Studio	Burger Joint	Hotel	Café
Regent Park / Harbourfront	43.654260	-79.360636	0	Coffee Shop	Bakery	Pub	Park	Mexican Restaurant	Breakfast Spot	Restaurant	Café	Yoga Studio
Garden District, Ryerson	43.657162	-79.378937	0	Clothing Store	Coffee Shop	Cosmetics Shop	Middle Eastern Restaurant	Café	Japanese Restaurant	Bubble Tea Shop	Diner	Electronics Store
St. James Town	43.651494	-79.375418	0	Coffee Shop	Café	Restaurant	American Restaurant	Beer Bar	Cosmetics Shop	Japanese Restaurant	Italian Restaurant	Cocktail Bar
Berczy Park	43.644771	-79.373306	0	Coffee Shop	Cocktail Bar	Seafood Restaurant	Café	Farmers Market	Beer Bar	Bakery	Restaurant	Cheese Shop
Central Bay Street	43.657952	-79.387383	4	Coffee Shop	Italian Restaurant	Sandwich Place	Burger Joint	Thai Restaurant	Japanese Restaurant	Spa	Salad Place	Gym / Fitness Center
Richmond / Adelaide / King	43.650571	-79.384568	0	Coffee Shop	Restaurant	Café	Bar	Hotel	Bakery	Thai Restaurant	Gym	Steakhouse
Harbourfront East / Union Station / Toronto Is...	43.640816	-79.381752	0	Coffee Shop	Aquarium	Restaurant	Hotel	Café	Italian Restaurant	Fried Chicken Joint	Scenic Lookout	Brewery
Toronto Dominion Centre / Design Exchange	43.647177	-79.381576	0	Coffee Shop	Café	Hotel	Restaurant	American Restaurant	Gastropub	Seafood Restaurant	Bar	Japanese Restaurant
Commerce Court / Victoria Hotel	43.648198	-79.379817	0	Coffee Shop	Café	Restaurant	Hotel	American Restaurant	Gym	Gastropub	Seafood Restaurant	Japanese Restaurant
University of Toronto / Harbord	43.662696	-79.400049	0	Café	Restaurant	Bakery	Bar	Bookstore	Japanese Restaurant	Comfort Food Restaurant	Pub	Noodle House
Kensington Market / Chinatown / Grange Park	43.653206	-79.400049	0	Café	Coffee Shop	Vietnamese Restaurant	Bar	Mexican Restaurant	Vegetarian / Vegan Restaurant	Dumpling Restaurant	Bakery	Comfort Food Restaurant
CN Tower / King and Spadina / Railway Lands / ...	43.628947	-79.394420	3	Airport Lounge	Airport Service	Airport Terminal	Boat or Ferry	Boutique	Rental Car Location	Coffee Shop	Sculpture Garden	Harbor / Marina
Stn A PO Boxes	43.646435	-79.374846	0	Coffee Shop	Seafood Restaurant	Restaurant	Café	Hotel	Beer Bar	Cocktail Bar	Japanese Restaurant	Gym
First Canadian Place / Underground city	43.648429	-79.382280	0	Coffee Shop	Café	Restaurant	Gym	Hotel	Seafood Restaurant	Steakhouse	Japanese Restaurant	American Restaurant
Christie	43.669542	-79.422564	2	Grocery Store	Café	Coffee Shop	Park	Restaurant	Baby Store	Italian Restaurant	Athletics & Sports	Diner
Queen's Park / Ontario Provincial Government	43.662301	-79.389494	4	Coffee Shop	Yoga Studio	Creperie	Mexican Restaurant	Juice Bar	Italian Restaurant	Hobby Shop	Fried Chicken Joint	Distribution Center

As noted before that the three locations: Rosedale, Christie and Regent park have a parks in their common venues, have lesser restaurants and bars. Now we are going to work towards picking the one with more accessibility to subway and has more residensial area located near it
- The arrows point towards the restaurants in the area
- The blue circles represent subways
- The Black stars represent residensial area

	Neighborhoods	Restaurants	Parks	Subway	Residensial
0	Rosedale	0	5	4	1
1	Christie	0	3	5	5
2	Regent Park	5	3	2	1

Resultant Scoreboard:

1. Rosedale Neighborhood is noticed to have parks which can attract a large crowd making the restaurant visible, has no competition in terms of restaurants and has accessibility to subways, but residential score is low

2. Christie Neighborhood is notices to have a park, high score for sub way accessibility and residential area, making it a hub for potential customers without much of competition

3. Regent Park, having a high score for restaurants makes it unlikely of choice

Therefore, I would recommend that Christie neighborhood to be the ideal location