



Toronto's Top Neighborhood

Presenter: Wei Yi
Date: June 20, 2020
For: Coursera Capstone Project

Table of Content

- 1. Introduction
- 2. Data Acquisition and Cleaning
- 3. Methodology: Exploratory Data Analysis
- 4. Conclusion

1. Introduction

- ## 1.1 Background

The Greater Toronto Area (GTA) is the most populous metropolitan area in Canada. It consists of the City of Toronto and 4 surrounding regional municipalities: Durham, Halton, Peel, and York. There are 25 incorporated municipalities in the GTA area, and is recognized as one of the most multicultural and cosmopolitan cities in the world. The metropolitan area continues to grow and attract immigrants from all over the world

- ## 1.2 Problem

For new immigrants and families interested in Toronto as a place to live, and would like to find cultural/entertainment opportunities and establishments (restaurants, museums, parks, etc.) best suited for their own needs, this analysis will attempt to find things to do for new comers in Toronto that have a relatively high number of venues.

- ## 1.3 Interest

The key audience for this research is new immigrants who are considering a move to Toronto. Personally, I'm also interested in this analysis. Having lived in GTA for almost 6 years, I am looking forward to applying data science methods and location data to gain a better understanding of the key neighborhoods in the Toronto.



2. Data Acquisition and Cleaning

• 2.1 Data Sources

Canada Post provides a free postal code look-up tool on its website, and for this analysis, we will be using data from this Wikipedia page:https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:M (https://en.wikipedia.org/w/index.php?title=List_of_postal_codes_of_Canada&oldid=900000000) As for geographical coordinates of the neighborhoods, we will be using this link to a csv file: http://cocl.us/Geospatial_data (http://cocl.us/Geospatial_data).

For each neighborhood, I use the following types off data (source in parenthesis):

- Latitude (Foursquare API)
- Longitude (Foursquare API)
- Venues (Foursquare API)
- Type of Venue (Foursquare API)
- Postal code (Wikipedia)

- List of neighborhood: Berczy Park
- Brockton, Parkdale Village, Exhibition Place
- Business reply mail Processing Centre, South Central Letter Processing Plant Toronto
- CN Tower, King and Spadina, Railway Lands, Harbourfront West, Bathurst Quay, South Niagara, Island airport
- Central Bay Street
- Christie
- Church and Wellesley
- Commerce Court, Victoria Hotel
- Davisville
- Davisville North
- Dufferin, Dovercourt Village
- First Canadian Place, Underground city
- Forest Hill North & West, Forest Hill Road Park
- Garden District, Ryerson
- Harbourfront East, Union Station, Toronto Islands
- High Park, The Junction South
- India Bazaar, The Beaches West
- Kensington Market, Chinatown, Grange Park
- Lawrence Park
- Little Portugal, Trinity
- Moore Park, Summerhill East
- North Toronto West, Lawrence Park
- Parkdale, Roncesvalles
- Queen's Park, Ontario Provincial Government
- Regent Park, Harbourfront
- Richmond, Adelaide, King
- Rosedale
- Roselawn
- Runnymede, Swansea
- St. James Town
- St. James Town, Cabbagetown
- Stn A PO Boxes
- Studio District
- Summerhill West, Rathnelly, South Hill, Forest Hill SE, Deer Park
- The Annex, North Midtown, Yorkville
- The Beaches
- The Danforth West, Riverdale
- Toronto Dominion Centre, Design Exchange
- University of Toronto, Harbord

2.2 Data Cleaning

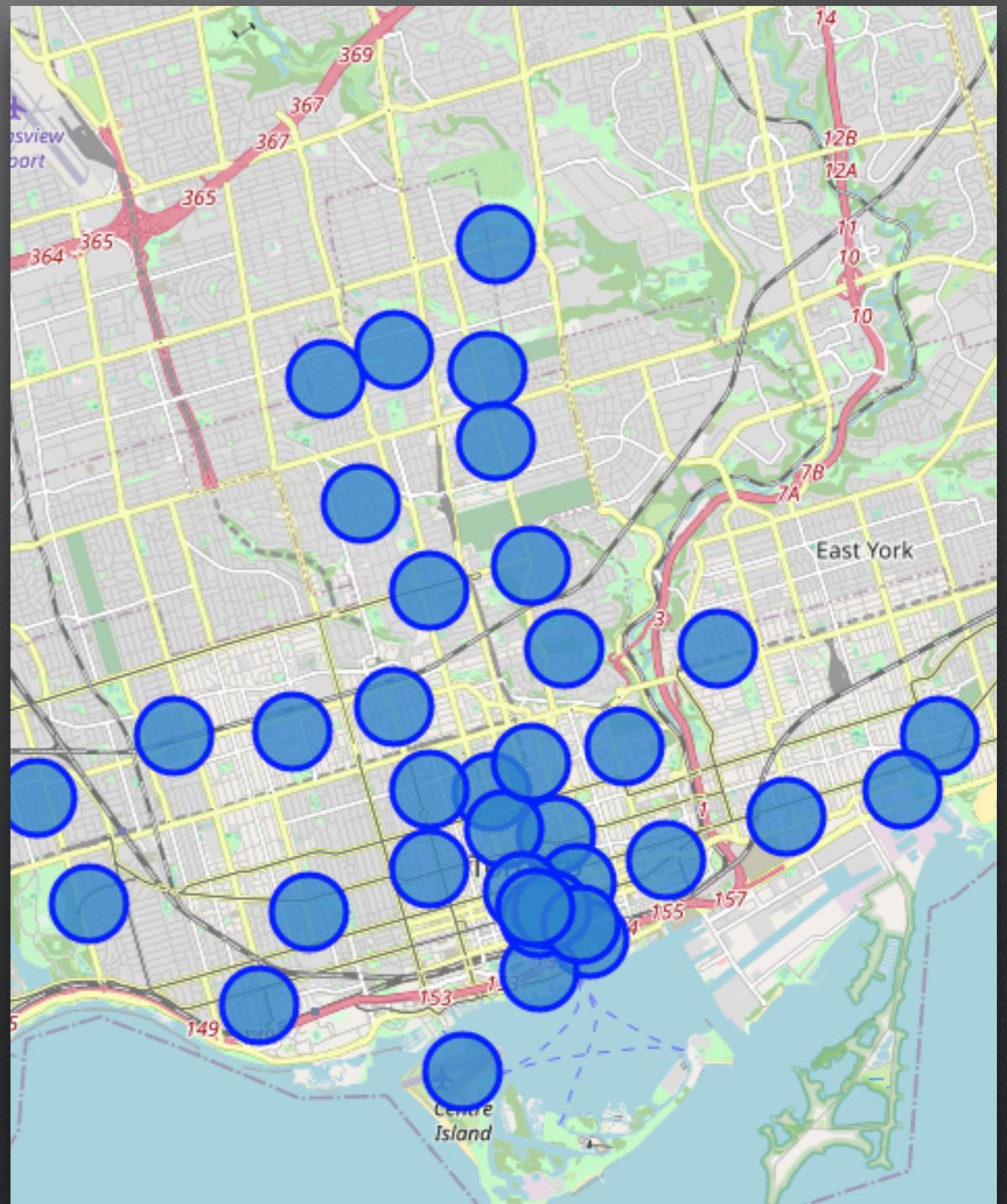


Data for this analysis was pulled from listed sources, and compiled into one table. The data scraping and wrangling process using Pandas/Python was used to access neighborhood and venue data from the Foursquare API. All data are very recent, from 2020. Please find the table below for your review:

Postal Code	Borough	Neighborhood	Latitude	Longitude
M5A	Downtown Toronto	Regent Park, Harbourfront	43.654260	-79.360636
M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government	43.662301	-79.389494
M5B	Downtown Toronto	Garden District, Ryerson	43.657162	-79.378937
M5C	Downtown Toronto	St. James Town	43.651494	-79.375418
M4E	East Toronto	The Beaches	43.676357	-79.293031
M5E	Downtown Toronto	Berczy Park	43.644771	-79.373306
M5G	Downtown Toronto	Central Bay Street	43.657952	-79.387383
M6G	Downtown Toronto	Christie	43.669542	-79.422564
M5H	Downtown Toronto	Richmond, Adelaide, King	43.650571	-79.384568
M6H	West Toronto	Dufferin, Dovercourt Village	43.669005	-79.442259
M5J	Downtown Toronto	Harbourfront East, Union Station, Toronto Islands	43.640816	-79.381752
M6J	West Toronto	Little Portugal, Trinity	43.647927	-79.419750
M4K	East Toronto	The Danforth West, Riverdale	43.679557	-79.352188
M5K	Downtown Toronto	Toronto Dominion Centre, Design Exchange	43.647177	-79.381576
M6K	West Toronto	Brockton, Parkdale Village, Exhibition Place	43.636847	-79.428191
M4L	East Toronto	India Bazaar, The Beaches West	43.668999	-79.315572
M5L	Downtown Toronto	Commerce Court, Victoria Hotel	43.648198	-79.379817
M4M	East Toronto	Studio District	43.659526	-79.340923
M4N	Central Toronto	Lawrence Park	43.728020	-79.388790
M5N	Central Toronto	Roselawn	43.711695	-79.416936

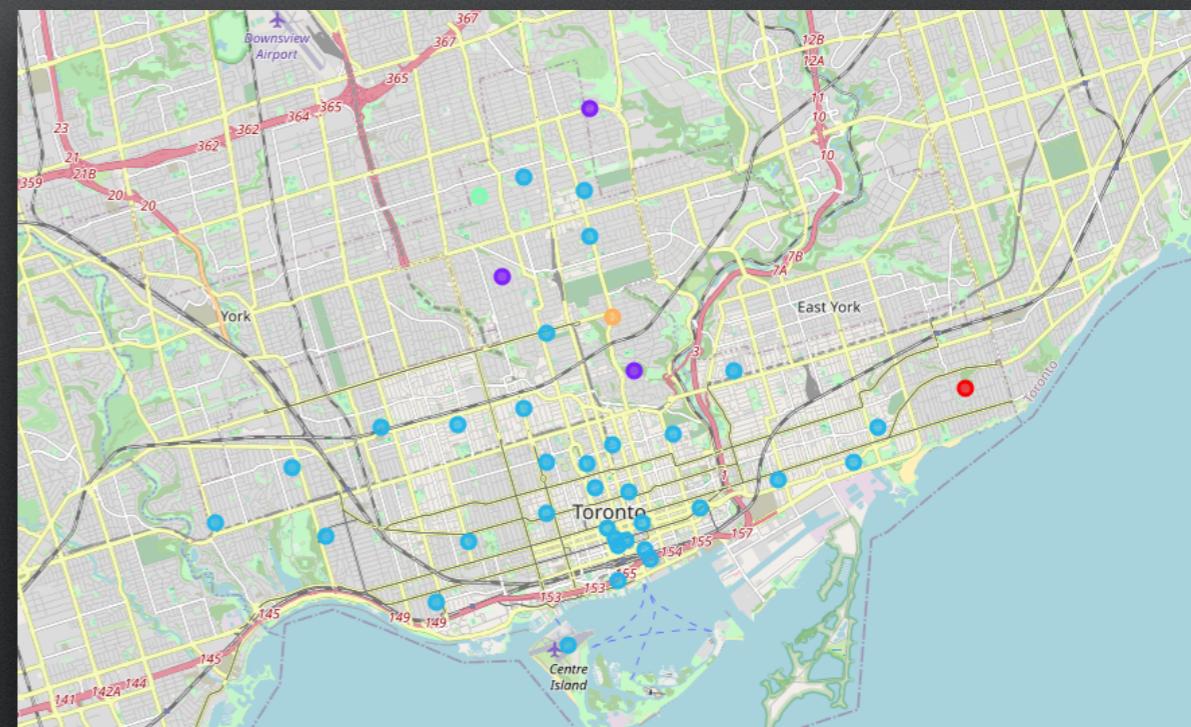
3. Methodology

- 3.1 Built dataframe of the postal code, latitude and the longitude coordinates of each neighborhood
- 3.2 Segmenting and clustering neighborhood in Toronto





Neighborhood	Latitude	Neighborhood	Longitude	Venue	Venue	Venue	Venue	Venue	Venue
				Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
Neighborhood									
Berczy Park	58		58	58	58	58	58	58	58
Brockton, Parkdale Village, Exhibition Place	24		24	24	24	24	24	24	24
King Centre, South Central Letter Processing Plant Toronto	17		17	17	17	17	17	17	17
Railway Lands, Harbourfront West, Bathurst Quay, South Niagara, Island airport	16		16	16	16	16	16	16	16
Central Bay Street	66		66	66	66	66	66	66	66
Christie	17		17	17	17	17	17	17	17
Church and Wellesley	83		83	83	83	83	83	83	83
Commerce Court, Victoria Hotel	100		100	100	100	100	100	100	100
Davisville	33		33	33	33	33	33	33	33
Davisville North	9		9	9	9	9	9	9	9
Dufferin, Dovercourt Village	15		15	15	15	15	15	15	15
First Canadian Place, Underground city	100		100	100	100	100	100	100	100
Forest Hill North & West, Forest Hill Road Park	4		4	4	4	4	4	4	4
Garden District, Ryerson	100		100	100	100	100	100	100	100
Harbourfront East, Union Station, Toronto Islands	100		100	100	100	100	100	100	100
High Park, The Junction South	24		24	24	24	24	24	24	24
India Bazaar, The Beaches West	20		20	20	20	20	20	20	20
Kensington Market, Chinatown, Grange Park	60		60	60	60	60	60	60	60
Lawrence Park	3		3	3	3	3	3	3	3
Little Portugal, Trinity	44		44	44	44	44	44	44	44
Moore Park, Summerhill East	2		2	2	2	2	2	2	2
North Toronto West, Lawrence Park	20		20	20	20	20	20	20	20



4. Conclusion

- **4.1 Top 10 most popular neighborhood:**

- Harbourfront, Regent Park
- Queen's park
- Garden District, Ryerson
- St. James Town
- The Beaches
- Berczy Park
- Central Bay Street
- Christie
- Richmond, Adelaide, King
- Dufferin, Dovercourt Village



4.2 Most popular venues in each top neighborhood

Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue
Regent Park, Harbourfront	Coffee Shop	Park	Pub	Bakery	Café
Queen's Park, Ontario Provincial Government	Coffee Shop	Sushi Restaurant	Yoga Studio	Restaurant	Bar
Garden District, Ryerson	Clothing Store	Coffee Shop	Cosmetics Shop	Café	Bubble Tea Shop
St. James Town	Coffee Shop	Café	Cocktail Bar	American Restaurant	Gastropub
The Beaches	Asian Restaurant	Pizza Place	Pub	Trail	Health Food Store
Berczy Park	Coffee Shop	Cocktail Bar	Café	Bakery	Seafood Restaurant
Central Bay Street	Coffee Shop	Sandwich Place	Italian Restaurant	Japanese Restaurant	Café
Christie	Grocery Store	Café	Park	Athletics & Sports	Candy Store
Richmond, Adelaide, King	Coffee Shop	Café	Restaurant	Deli / Bodega	Gym
Dufferin, Dovercourt Village	Bakery	Pharmacy	Park	Pizza Place	Recording Studio



Thank You

