# Most common/top places in Toronto for Tourist attraction

Haris A. Qureshi

March 4<sup>th</sup>, 2020

#### 1. INTRODUCTION

# 1.1 Background

It is no doubt that any tourist when comes to a new country is puzzled with the thought of where to proceed and where to go from the airport, or what places must be visited on their visit to a new country. It is very difficult for them to get in touch with the locals and get suggestions from them because their suggestion may be limited to their taste.

#### 1.2 Problem statement and solution

Due to this, the problem for tourist place visits is solved using Foursquare API to provide them with the data of top places for them to visit. The scope of this project is limited to Toronto.

#### **2. DATA**

The data to be used is places in Toronto, including Beaches, Parks, Cafes, etc. The dataset to be used is from the Wikipedia page which was redirected in the course module of week 3.

#### 3. METHODOLOGY

Pandas library was used head to head to clean and structure the dataset which was collected from the Wiki page. Then after structuring the data in a Pandas DataFrame, Foursquare API was used to get the data about reviews and visits on certain places in a specified radius of 500 meters from the Toronto.

The categories of places were then used to further specify which of them have famous places among them. The categories are shown as below;

	nearby_venues.head()								
t[22]:		name	categories	lat	Ing				
	0	Glen Manor Ravine	Trail	43.676821	-79.293942				
	1	The Big Carrot Natural Food Market	Health Food Store	43.678879	-79.297734				
	2	Grover Pub and Grub	Pub	43.679181	-79.297215				
	3	Upper Beaches	Neighborhood	43.680563	-79.292869				
	4	Dip 'n Sip	Coffee Shop	43.678897	-79.297745				

Neighborhoods were then explored in these categories to see which places are in those neighborhoods. After finding the neighborhoods, frequency was calculated to measure certain score for a specific place.

## 4. RESULTS

The top 5 venues were calculated from the given categories;

```
----Adelaide, King, Richmond----
venue freq
0 Coffee Shop 0.07
1 Thai Restaurant 0.04
2 Bar 0.04
3 Restaurant 0.04
4 Café 0.04

----Bathurst Quay, CN Tower, Harbourfront West, Island airport, King and Spadina, Railway Lands, South Niagara----
venue freq
0 Airport Service 0.17
1 Airport Lounge 0.11
2 Airport Lounge 0.11
3 Plane 0.06
4 Rental Car Location 0.06

----Berczy Park---
venue freq
0 Coffee Shop 0.07
1 Cocktail Bar 0.04
2 Beer Bar 0.04
3 Farmers Market 0.04
4 Restaurant 0.04

----Brockton, Exhibition Place, Parkdale Village----
venue freq
1 Coffee Shop 0.08
2 Breakfast Spot 0.08
3 Yoga Studio 0.04
4 Italian Restaurant 0.04
```

Then they were structured in a proper dataframe with the most common one first in that neighborhood;

ne	eighborhoods_	venues_s	orted.head	d()							
	Neighborhood	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	1 C
0	Adelaide, King, Richmond	Coffee Shop	Restaurant	Bar	Café	Thai Restaurant	Steakhouse	Sushi Restaurant	Gym	Lounge	S
1	Bathurst Quay, CN Tower, Harbourfront West, Is	Airport Service	Airport Lounge	Airport Terminal	Sculpture Garden	Boutique	Bar	Rental Car Location	Plane	Boat or Ferry	c
2	Berczy Park	Coffee Shop	Beer Bar	French Restaurant	Restaurant	Café	Bakery	Seafood Restaurant	Cheese Shop	Cocktail Bar	F
3	Brockton, Exhibition Place, Parkdale Village	Café	Coffee Shop	Breakfast Spot	Performing Arts Venue	Stadium	Burrito Place	Restaurant	Climbing Gym	Pet Store	N V
4	Business Reply Mail Processing Centre 969 Eastern	Yoga Studio	Auto Workshop	Skate Park	Brewery	Spa	Farmers Market	Fast Food Restaurant	Burrito Place	Restaurant	В

## **5. DISCUSSION**

The scope of this project was limited to the Toronto, and further machine learning techniques could be used to find more insights on the relationships between certain places.

# 6. CONCLUSION

It can be concluded that certain areas and most of them had Cafes and Coffee shops as the most common place for attraction. Tourists may tend to visit them to grab a cup of coffee and snacks on their long run.