The Battle of the Neighborhoods in Toronto, Canada

Hello!

I am Gökberk Yücel KAYA

I am here because I will make the final project presentation of the Applied Data Science Capstone course in the IBM Data Science program.

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Business Problem

Location is the key to most businesses, and the entrepreneurs typically build their reputation at a particular spot.

Phyllis Schlafly

Location is a very important factor for a food venue.

What are the factors that make a place the best location?

◇ Demography
◇ Access
◇ Visibility
◇ Security / Crime rates
◇ Competition

Competition

Why competition matters ?

Being too close to established competition can be a double-edged sword. Being close to your competitors can help commercial marketing, but if you are too close to the competition, you may have a hard time gaining a place in the community.

What is the solution ?

◇ Exploring the locations of food venues
◇ Finding out which neighborhoods food venues are concentrated in
◇ Frequency of food venue types in neighborhoods

2 Data

Data Collection

Neighborhoods of Toronto

Information such as the postal code, borough, and neighborhood of the city of Toronto will be collected by scraping the wikipedia page.

Geospatial Coordinates

Toronto Neighborhood coordinates will be collected using the prepared geospatial coordinates csv file.

Foursquare API

The number, type, location, postal code and distance of the food venues in each neighborhood will be obtained using the Foursquare API.

3

Methodology

Methodology

◇   Exploring the locations of food venues
◇   Finding out which neighborhoods food venues are concentrated in
◇   Frequency of food venue types in neighborhoods
◇   Cluster the neighborhoods of Toronto

4   Analysis

Processed Venues Data

	Neighborhood Postal Code	Borough	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Postal Code	Venue Distance	Venue Category
0	M3A	North York	Parkwoods	43.753259	-79.329656	Allwyn's Bakery	43.759840	-79.324719	M3A	833	Caribbean Restaurant
1	M3A	North York	Parkwoods	43.753259	-79.329656	Tim Hortons	43.760668	-79.326368	M3A	866	Café
2	M3A	North York	Parkwoods	43.753259	-79.329656	A&W	43.760643	-79.326865	M3A	852	Fast Food Restaurant
3	M3A	North York	Parkwoods	43.753259	-79.329656	High Street Fish & Chips	43.745260	-79.324949	M3A	967	Fish & Chips Shop
4	M3A	North York	Parkwoods	43.753259	-79.329656	Pizza Pizza	43.760231	-79.325666	M3A	839	Pizza Place

Heat Map Of Venues
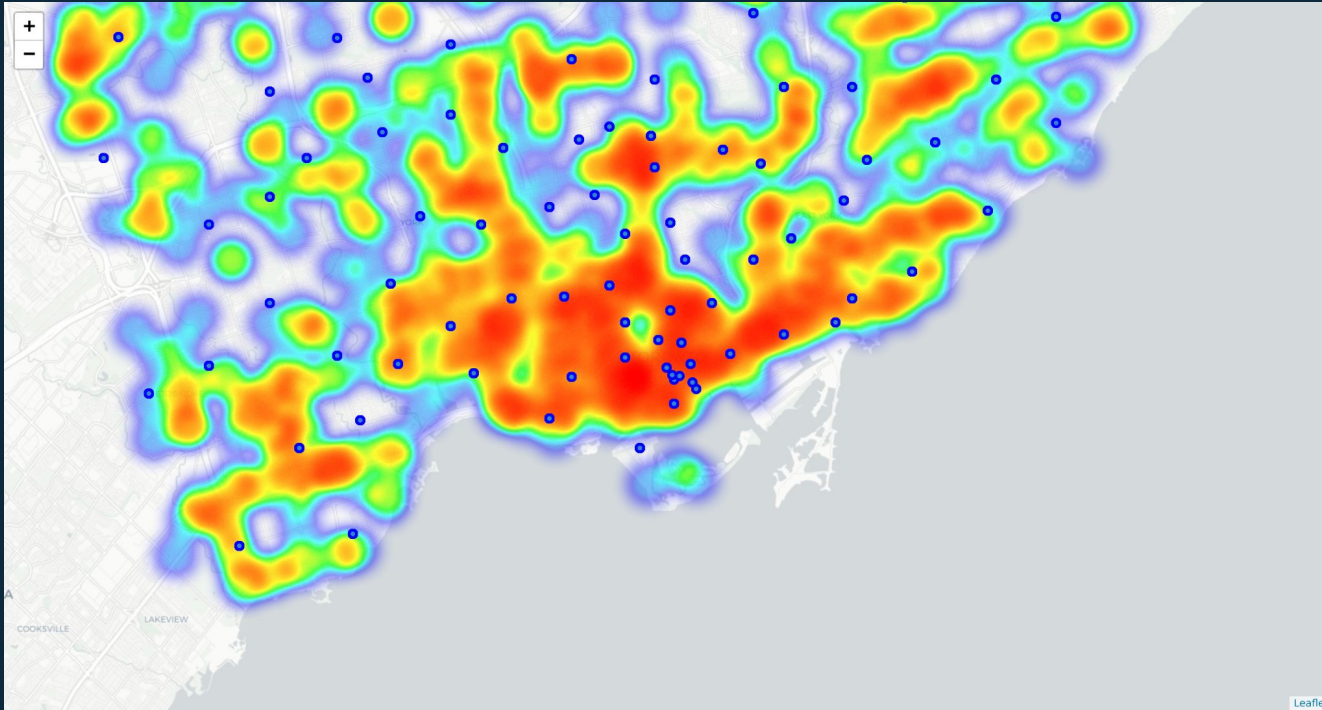
Frequency of Occurrence of Food Venue Categories in the busiest neighborhood

Frequency of Occurrence of Each Venue Category

CN Tower, King and Spadina, Railway Lands, Harbourfront West, Bathurst Quay, South Niagara, Island airport
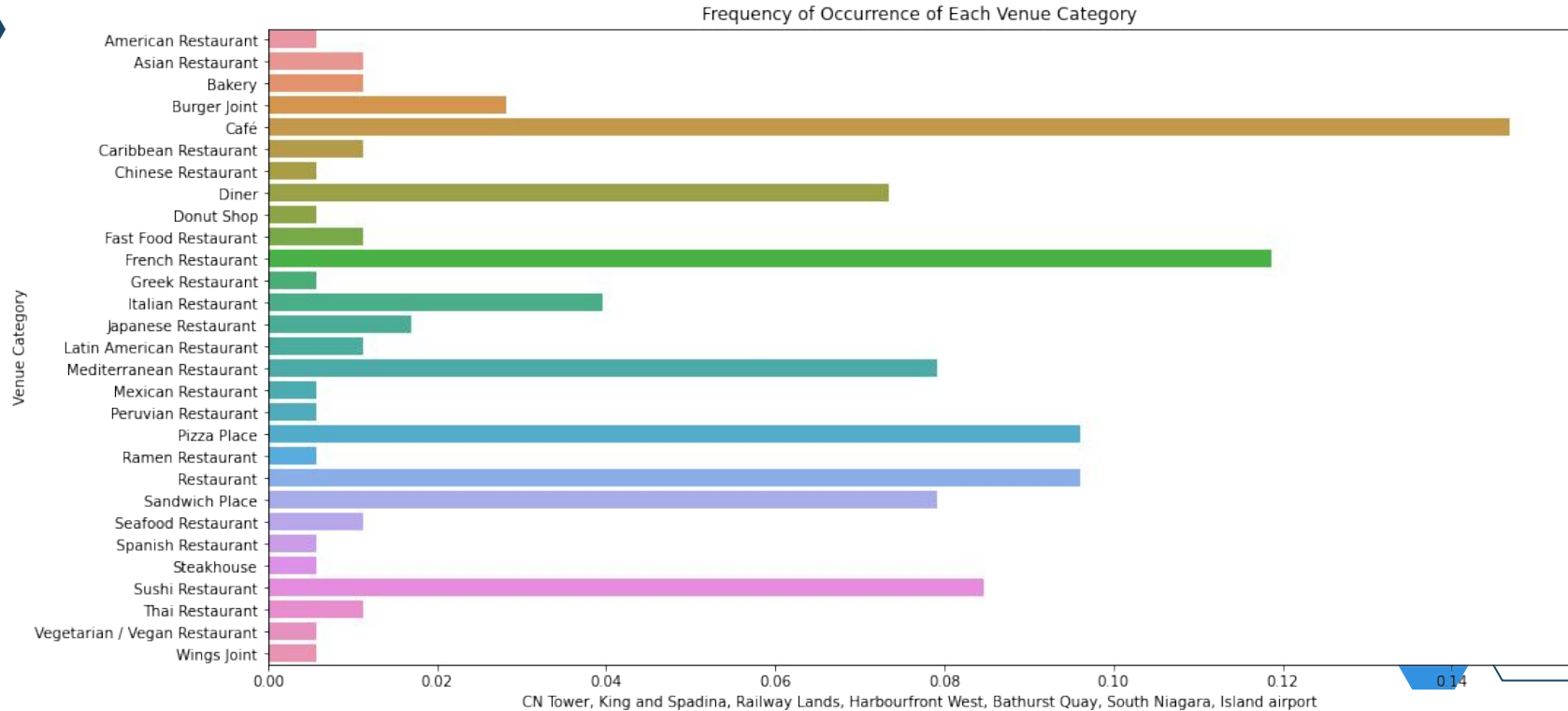
Clustering of Neighborhoods
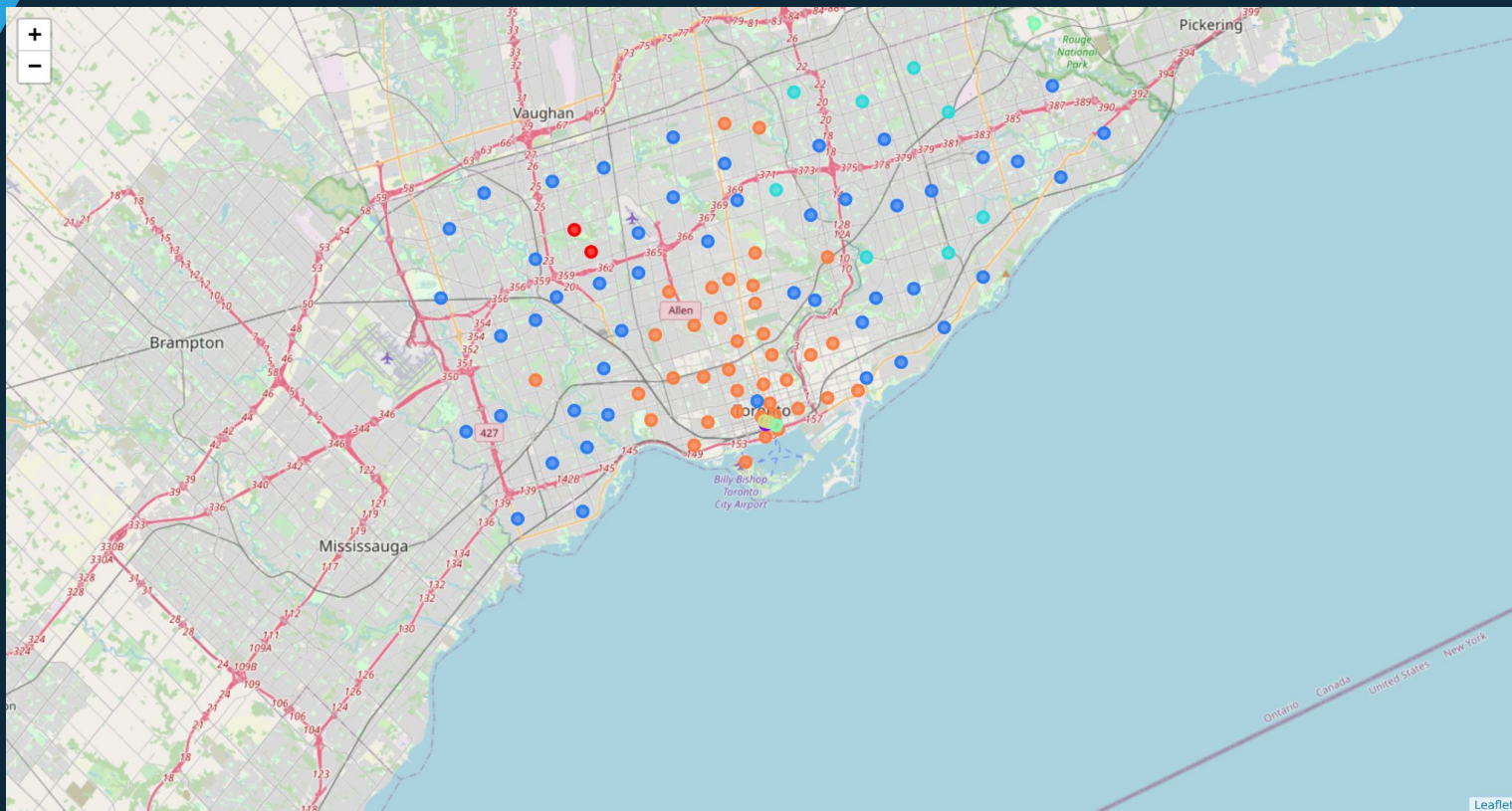
5

Results and Discussion

The analysis shows that the busiest area in the city of Toronto in terms of food venues is the neighborhoods connected to the Downtown Toronto borough. The main ones are CN Tower, King and Spadina, Railway Lands, Harbourfront West, Bathurst Quay, South Niagara, Island airport neighborhoods.

The most common food venue categories in this neighborhoods are Cafe, French restaurants, pizza places, restaurants.

The information we provide is far from offering pinpoint options for stakeholders. The reason for this is that our analyzes are far from the real field. Therefore, it should not be forgotten that the information we provide will only help stakeholders to choose a starting point in finding a new location for their business.

6 Conclusion

The aim of this project was to assist stakeholders trying to find venues for a food venue in the city of Toronto. There are many factors that affect the location of a food venue. We can list these factors as follows: demography, labor costs and minimum wage, access, proximity to suppliers, competition, visibility, future growth, health regulations and zoning, security / crime rates. In this study, analyzes were made considering only the competition factor. When the stakeholders consider all these factors, they will be able to choose the best location for their food venues.

Thanks!