

# Capstone Project- The Battle of Neighborhoods

## Business Problem

Toronto is the capital city of the Canadian province of Ontario. With a recorded population of 2,731,571 in 2016 it is the most populous city in Canada and the fourth most populous city in North America. The Province Ontario is one of the thirteen provinces and territories of Canada. Located in Central Canada, it is Canada's most populous province, with 38.3 percent of the country's population, and is the second-largest province by total area.

The diverse population of Toronto reflects its current and historical role as an important destination for immigrants to Canada. More than 50 percent of residents belong to a visible minority population group, and over 200 distinct ethnic origins are represented among its inhabitants. While the majority of Torontonians speak English as their primary language, over 160 languages are spoken in the city.

With its diverse culture, comes diverse food items and many different types of restaurants in Toronto. As a part of this project, I will list and visualize this for Toronto.

Questions that can be asked regarding this:

- What is best location in Toronto for a new sushi restaurant?
- Which areas have large number of sushi restaurants?
- Which areas have less number of sushi restaurants?
- Which is the best place to stay if I prefer sushi restaurants?

## Data Description

For this project I need the following data:

- Toronto data with the different districts and postal codes
- Restaurant data for Toronto

Toronto data: The

Datasource: [https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M) Description: I will Scrap Toronto districts Table from Wikipedia and get the coordinates with the Geopy client.

Toronto restaurants data: needs to contain Locality, Restaurant name, their latitude and longitude.

Data source : Foursquare API : "<https://developer.foursquare.com/>" Description : By using this api I will get all the venues in each neighborhood.

## Methodology Section

The approach consist of:

- Data will be collected from "[https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M)" and cleaned and processed into a dataframe.
- FourSquare be used to locate all venues and then filtered by Sushi restaurants.
- Finally, the data be will be visually assessed using graphing from Python libraries.

## Problem Statement

What is the best location(s) for Sushi venue in Toronto?

In what Neighborhood and/or borough should the investor open a sushi restaurant to have the best chance of being successful?

## Data Preparation

My variables:

- Restaurant name
- Category
- Address
- Latitude
- Longitude
- Distance to city center
- State
- Postal Code

## Exploratory Data Analysis

I found the following results in the data:

1. There are 30 Sushi shops in Toronto
2. There are most sushi shops in postal code M5B
3. There are 6 Sushi shops within the postal code M5B
4. The highest rating is in postal code M4Y

## Results / Conclusion

In this project we have been through the process of identifying the business problem, and then specifying the data required for it. Afterwards I extracted the data and prepared it for the analysis. I

ended up with providing recommendations for where to open a sushi restaurant in Toronto in Canada. Toronto have the best rated Sushi restaurants on average, and a new restaurant should open in postal code M4Y. A more comprehensive analysis and future work would need to incorporate data from other external databases.