



# PROJECT

**Toronto Japanese restaurant Location Selection**

**Author: Yushan T.**

# INTRODUCTION

In the current complex business environment, location selection is particularly important for catering companies because the location is the direct entrance to offline traffic. The purpose of this project is to use machine learning and data analysis to find the most suitable location to open a Japanese restaurant. This analysis can help new restaurant chains in Japan to choose a location. Data analysis results can be directly used to quickly assess and effectively control the risk of location selection.

# Business Problem



The number of Japanese restaurants has grown at a rate of 10% in the Toronto area. MISUYA is a very famous Japanese restaurant in Japan. Investors want to set up different restaurant chains in the Toronto area. The solution I implemented is to use the vector maps of these cities and load more detailed geographic data, and use the geographic information system (GIS) to achieve batch processing and quantitative analysis. Help to help customers MISUYA find and determine the best location in the city with commercial geographic data.

# DATA SOURCE

List of postal codes of Canada: M  
[https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M)

Postal Code	Borough	Neighborhood
M1A	Not assigned	Not assigned
M2A	Not assigned	Not assigned
M3A	North York	Parkwoods
M4A	North York	Victoria Village
M5A	Downtown Toronto	Regent Park, Harbourfront
M6A	North York	Lawrence Manor, Lawrence Heights
M7A	Downtown Toronto	Queen's Park, Ontario Provincial Government
M8A	Not assigned	Not assigned
M9A	Etobicoke	Islington Avenue, Humber Valley Village
M1B	Scarborough	Malvern, Rouge
M2B	Not assigned	Not assigned
M3B	North York	Don Mills
M4B	East York	Parkview Hill, Woodbine Gardens
M5B	Downtown Toronto	Garden District, Ryerson

Get all the information about Toronto's existing communities. This page contains the postcode, the names of the boroughs and all communities in Toronto.

# METHODOLOGY

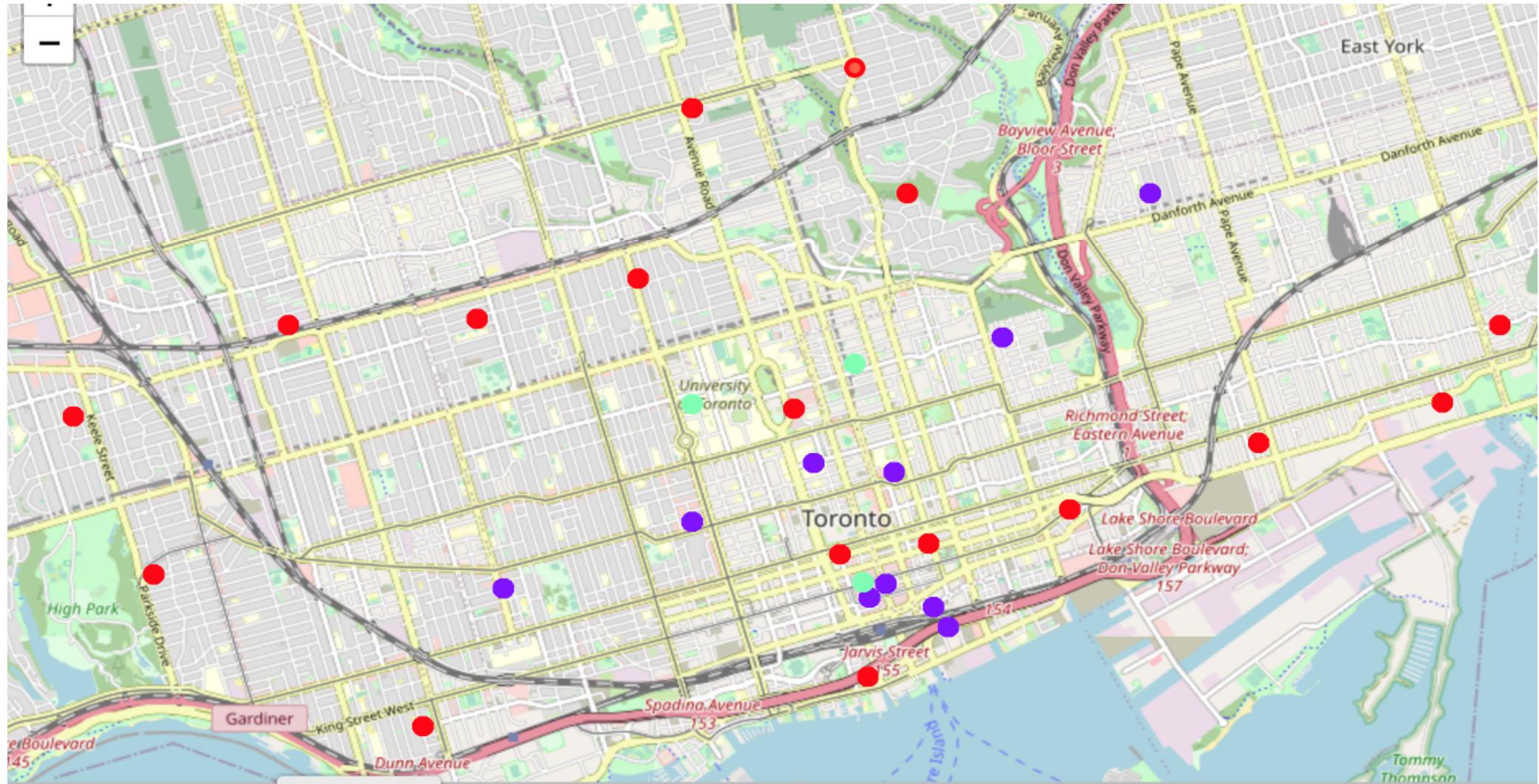
- Get all the information about Toronto's existing communities. This page contains the postcode, the names of the boroughs and all communities in Toronto.
- In order to get the location and other information about various places in Toronto, I am using Foursquare's Explore API. By using Foursquare's Explore API, we obtained detailed information about Toronto's existing venues and collected their names, categories, and locations (longitude and latitude).

# METHODOLOGY

I use Folium to draw interactive leaflet maps using coordinate data. View various regions and we need to verify that these coordinates are correct.



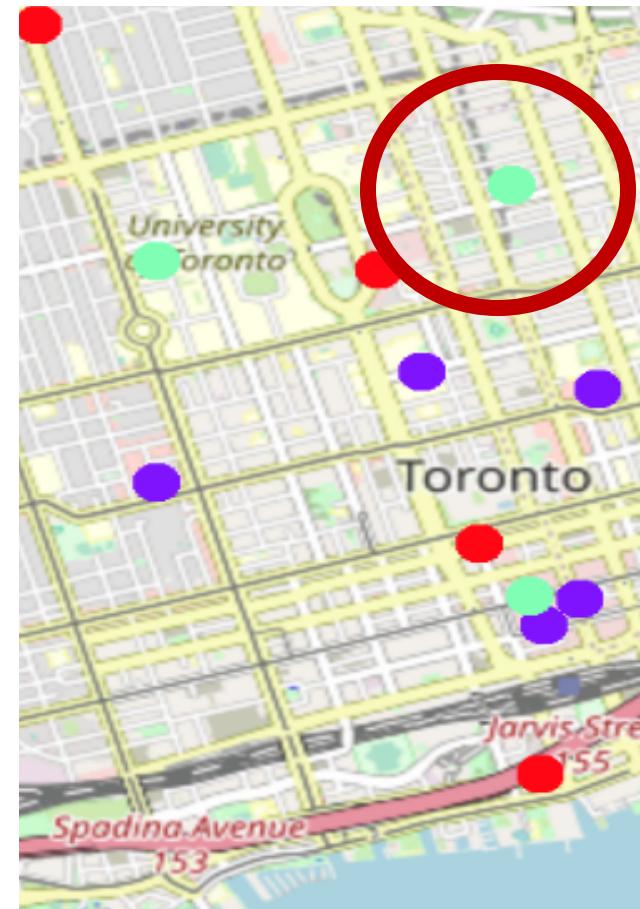
# CLUSTERS ON MAP



# Recommendation

- *Category 0: A community with a large number of Japanese restaurants.*
- *Category 1: There are not many Japanese restaurants in the community.*
- *Category 2: Community with few Japanese restaurants*

The results are visualized in the figure above, cluster 0 is red, cluster 1 is purple, and cluster 2 is green.



# CONCLUSION

Most Japanese restaurants are located in Type 0 and Type 1 areas near Richmond, Adelaide, King, St. James Town and Toronto Dominion Centre, and the lowest in Type 2 areas in the Church and Wellesley area. In addition, there is also a good opportunity to open near UofT. Looking at the nearby venues, it seems that Group 2 may be a good location because there are not many Japans in these areas. Therefore, the project recommends MISUYA to open chain restaurant restaurants in these locations.





THANK YOU