

# **CHOOSE TO SETTLE DOWN IN TORONTO CITY**

Minh Man, 2021

## **1. Introduce**

### **1.1. Background**

Toronto city is one of the big cities in Ontario province. Suppose you come to this area to settle down. A big question is where to choose to settle down. In every neighborhood, what venues are common in Toronto? (how many cafe stores, pizza, gyms, restaurants ..). So the purpose of the project is to find a good location for you to settle in the city of Toronto.

### **1.2. Interesting**

Although this project is looking for a place to settle in Toronto, I can use the project in my province to choose a good place to settle down in the future.

## **2. Data acquisition and cleaning**

### **2.1. Data sources**

Data about the postal code and neighborhoods in the city of Toronto is taken from Wikipedia.

The latitude and longitude information for every neighborhood in the city of Toronto is obtained from this course.

Data on popular venues (restaurants, cafes, banks, gyms, etc.) is obtained from the Foursquare City Guide.

## **2.2. Data cleaning**

First, I don't have available data about the postal code, boround and neighborhood in Toronto city, I have to web scrape the data available in wikipedia. But the data on wikipedia is not what I want. I have edited neighborhood names and removed unnecessary information.

Next, the location data (longitude, latitude) was provided from the course but It has a separate file, I combined the course data with the data IN web scraping from wikipedia.

Finally, the venue data in Toronto city was not available. I used the Foursquare API to get the data, then I selected 10 popular venue places in the neighborhoods. .

## **2.3. Feature selection**

After cleaning the data, I had 102 samples and 15 features. Of which 10 features include common types of venues. The remaining features include neighborhood, boround, longitude, latitude and postal code.

## **3. Classification**

### **3.1. Modelling**

I use the k-mean classification algorithm to cluster common venues locations in the 10 venues features that I have selected.

### **3.2. Visualization**

After modeling, I visualize the results through the Fodum library (Figure 1).

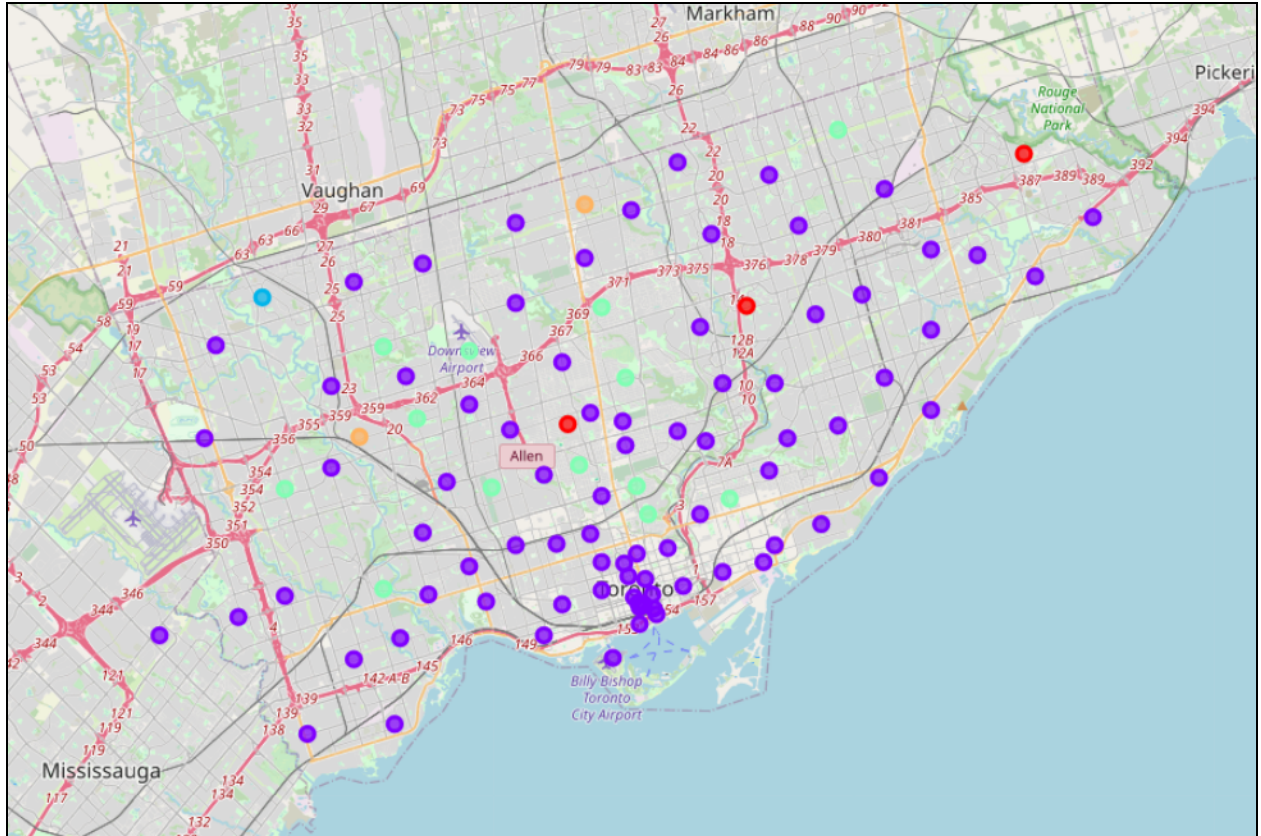


Figure 1. Map of neighborhoods in Toronto city

Cluster	Color	Explain
0	Red	If you are a busy person and do not have time to prepare food, you will like this neighborhood because it has a lot of famous fast food.
1	Purple	If you like the variety of meeting places, then this boround is suitable for you, boround has many different venues such as cafes, restaurants, pizza shops, grocery stores,...
2	Blue	If you like a place that's not too busy, but it also still has a

3	Green	variety of venues, this is the area you should think about. It has a park, there are restaurants, grocery stores,...
4	Orange	If you like a place close to nature, this neighborhood is well suited for popular venues places such as parks, rivers, yoga centers.

#### **4. Conclusions**

If I moved to Toronto to live, I would choose the Malvern, Rouge neighborhood because I like fast food, moreover it's close to a big Toronto city park and nearing a highway.