

IBM Data Science Professional Certificate
Capstone Project - The Battle of Neighborhoods (Week 1)
“Where To Locate Your Restaurant”

Introduction:

Toronto is the largest city of Canada and one of the most ethnically diverse cities in the world. Many immigrant cultures have brought their traditions, languages and music to Toronto. The city features many distinctive neighbourhoods bustling with activity and vitality. These include the largest collection of Victorian-era industrial architecture in North America , the largest urban car-free community in North America, and the bohemian heart of the city, Kensington Market. Toronto is also well known for its multi-cuisine dishes. Downtown Toronto has many opportunities for entrepreneurs to start their business.

Problem Statement:

In the city of Toronto, an entrepreneur is looking to open a Italian restaurant. As a data scientist, where would we recommend him to open it for his maximum profit?

To solve this problem we will have to look at all the neighborhoods of Toronto (in all aspects) and form different clusters depending on the number of Italian restaurants they have and then choose the cluster with the minimum number of Italian restaurants.

Data Overview:

The data that we will be using for this project comes from different sources:

1. Using the Wiki page (https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M), we will get all neighborhoods of Toronto.
2. Next we add the geographical locations (in terms of longitude and latitude) of all neighborhoods using the geocoder package.
3. Next using the Foursquare api, we will get venue details of all Italian restaurants in Toronto city. All this info will help us to locate the most suitable location for opening an Italian restaurant.