

Capstone Project - The Battle of Neighborhoods

1.Introduction

1.1 Scenario and Background:

I am planning to start a food truck in city of Toronto and I wanted to know in which areas the food is being supplied by different media and more venues are there other than food supplies. In that type of area, I can move my food truck with in the that area to make more business with less efforts to find a place to do food business.

1.2 Problem to be resolved:

How to find a neighborhood in Toronto with the following conditions to move food truck

- Food business is successful
- More venues along with restaurants
- Area with radius of 1km

1.3 Interested Audience:

I believe the methodology, tools and strategy used in this project is relevant for a person or entity considering moving to a major city in US, Europe or Asia. Europe, US or Asia, Likewise, it can be helpful approach to explore the opening of a new business. The use of FourSquare data and mapping techniques combined with data analysis will help resolve the key questions arisen. Lastly, this project is a good practical case for a person developing Data Science skills.

2. Data Section

2.1 Data Requirements:

- Data with postal codes and neighborhoods in the city of Toronto with latitude and longitude
- Nearby venues of the neighborhoods

2.2 Data Sources, Data Processing and Tools used:

- Postal codes with neighborhoods will be web scrapped form wiki page using beautifulsoup
https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
- Latitude and longitude of the neighborhood will be collected from the following geospatial data http://cocl.us/Geospatial_data
- Nearby venues of the neighborhoods collected by using foursquare api.
The data after pre-processing may look like

| Neighborhood | Neighborhood Latitude | Neighborhood Longitude | Venue | Venue Latitude | Venue Longitude | Venue Category |
|------------------|-----------------------|------------------------|------------------------|----------------|-----------------|-----------------------|
| Parkwoods | 43.753259 | -79.329656 | Brookbanks Park | 43.751976 | -79.332140 | Park |
| Parkwoods | 43.753259 | -79.329656 | Variety Store | 43.751974 | -79.333114 | Food & Drink Shop |
| Victoria Village | 43.725882 | -79.315572 | Victoria Village Arena | 43.723481 | -79.315635 | Hockey Arena |
| Victoria Village | 43.725882 | -79.315572 | Tim Hortons | 43.725517 | -79.313103 | Coffee Shop |
| Victoria Village | 43.725882 | -79.315572 | Portugril | 43.725819 | -79.312785 | Portuguese Restaurant |

We have to concentrate on the venue category and the nieghborhoods.