



PROSPECTS OF OPENING CHINESE RESTAURANT IN TORONTO

TORONTO BACKGROUND

- Toronto, capital of the province of Ontario, is a major Canadian city along Lake Ontario's north-western shore. It's a dynamic metropolis with a core of soaring skyscrapers, all dwarfed by the iconic, free-standing CN Tower. Toronto also has many green spaces, from the orderly oval of Queen's Park to 400-acre High Park and its trails, sports facilities and zoo.
- The central core has seen unprecedented office growth and residential growth, particularly of condominium apartments, while the former suburbs and further outlying suburbs have seen the bulk of new industrial investment. A major metropolis of just over 2.8 million people, Toronto is also one of the most ethnically diverse in the world.



DEMOGRAPHICS AND VENUE INFORMATION IS IMPORTANT TO UNDERSTAND WHERE TO OPEN A BUSINESS

Generally, neighborhoods with high Chinese population are valued as great locations for opening a Chinese restaurant.

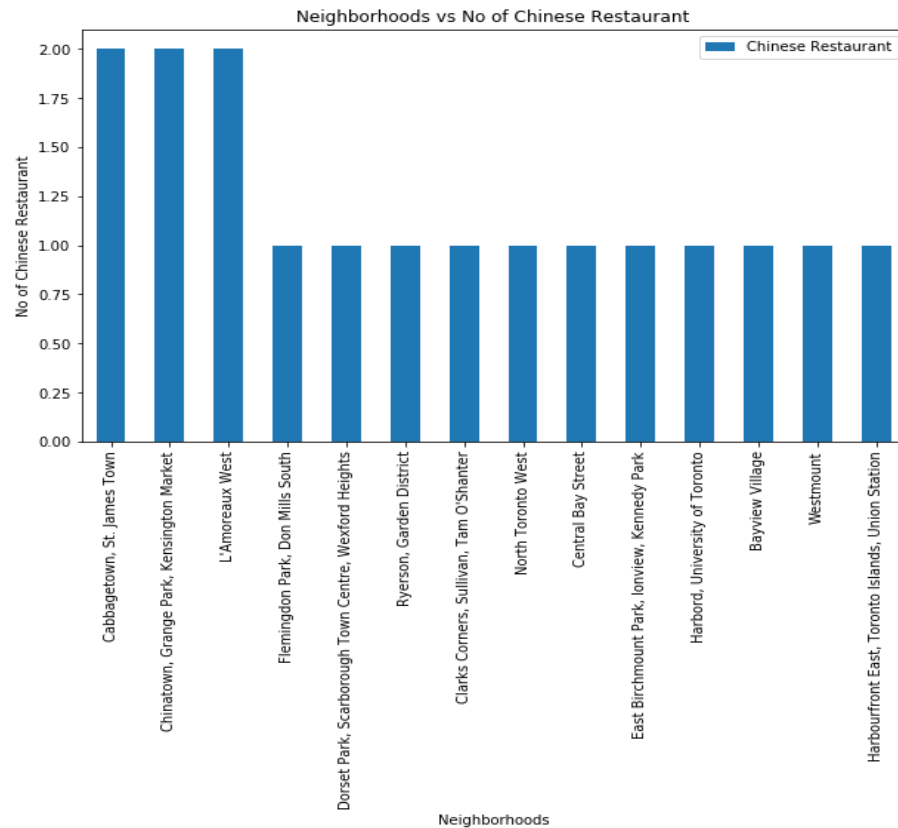
Neighborhoods with high number of Chinese restaurants may considered not as a great location as restaurants are already established. However, if the Chinese restaurant that is opening in those locations that offer an unique difference to all the other Chinese restaurants, then it could be considered good locations.



DATA ACQUISITION AND CLEANING

- “List of Postal code of Canada: M” Wikipedia page is used to get all the information about the neighbourhoods present in Toronto. This page has the postal code, borough & the name of all the neighbourhoods present in Toronto.
- “Demographics of Toronto” Wikipedia page to get the diversity culture in Toronto. Using this page I’m going to identify the neighbourhoods which are densely populated with Chinese as it might be helpful in identifying the suitable neighbourhood to open a new Chinese restaurant.
- To get location and other information about various venues in Toronto I’m using Foursquare’s explore API.
- Duplicates, missings, zero chinese ethnicity in the neighbourhood or venues that are not restaurants were dropped
- Final and cleaned data contains 43 features

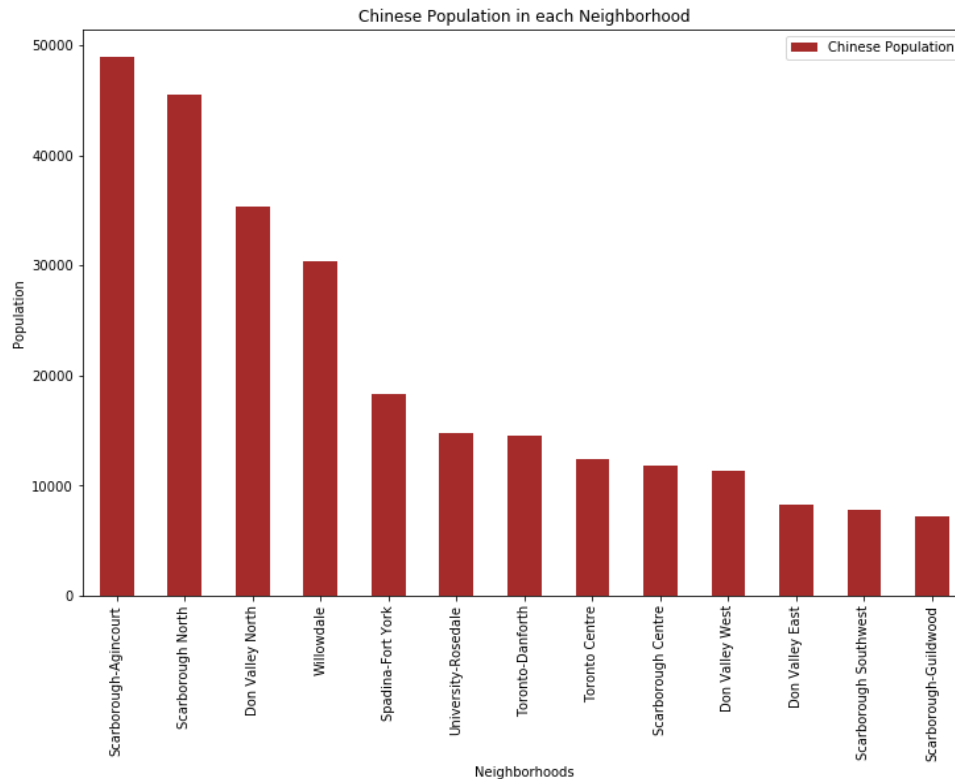
RESULTS – CHINESE RESTAURANT AREAS



There are 17 restaurants that are identified as Chinese Restaurants, that are somewhat evenly distributed in these neighborhoods.

Interesting that most of these restaurants are not around the Chinatown suburb, where only 2 are identified in Chinatown.

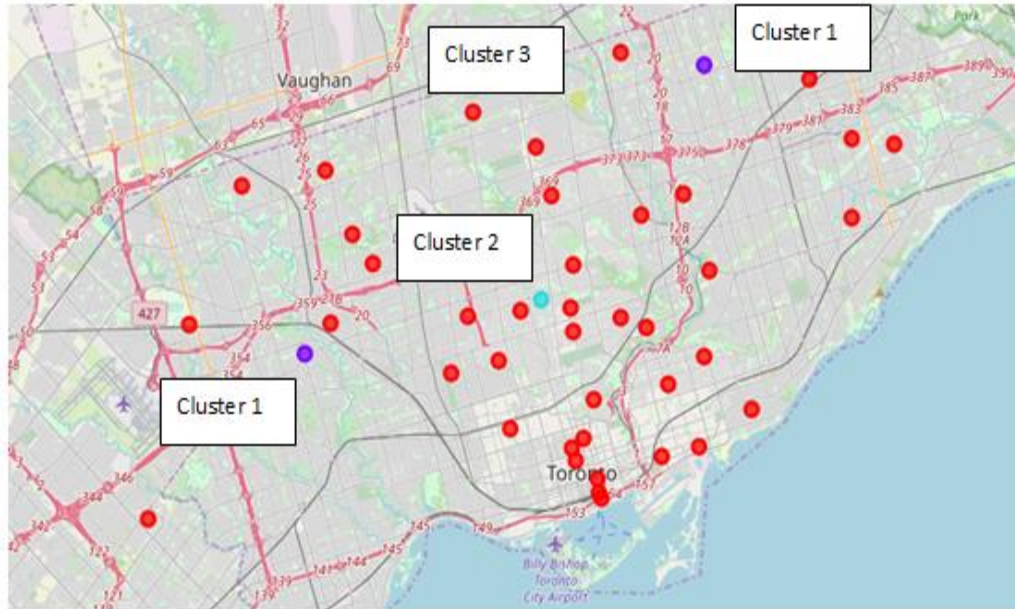
RESULTS – CHINESE POPULATION



The majority of the Chinese population are in the Scarborough Borough area, which is in the western areas of Toronto, next to East York and North York.

RESULTS

Clustering of neighbourhoods with Chinese Restaurants



The relationship between Chinese Restaurants and Population shows a wide spread of clusters, however, none of the cluster labels are showing around Chinatown.

Borough	Neighbourhood	Cluster Labels	Chinese Restaurant
North York	Bayview Village	3	0.25
Central Toronto	North Toronto West	2	0.058824
Scarborough	L'Amoreaux West	1	0.142857
Etobicoke	Westmount	1	0.125

DISCUSSION

According to this analysis, Scarborough borough will provide least competition for the new upcoming Chinese restaurant as there are very little Chinese restaurants spread or no Chinese restaurants in neighbourhoods.

Some of the drawbacks of this analysis are:

- The clustering is completely based only on data obtained from Foursquare API. Also the Chinese population distribution in each neighbourhood is also based on the 2016 census
- Many restaurants in Chinatown were considered as 'Asian' instead of 'Chinese' – causing our data to be skewed to a different result



CONCLUSION AND FUTURE DIRECTIONS

- Built useful models to predict whether and how much a player will improve.
- Accuracy of the models has room for improvement.
- Capture more information of Chinese Restaurants
- Ideas include:
 - Subcategories of restaurants (this may give us more restaurants considered as Chinese)
 - Financial Data (amount of revenue)
 - Physical data (no. of customers, star review)

