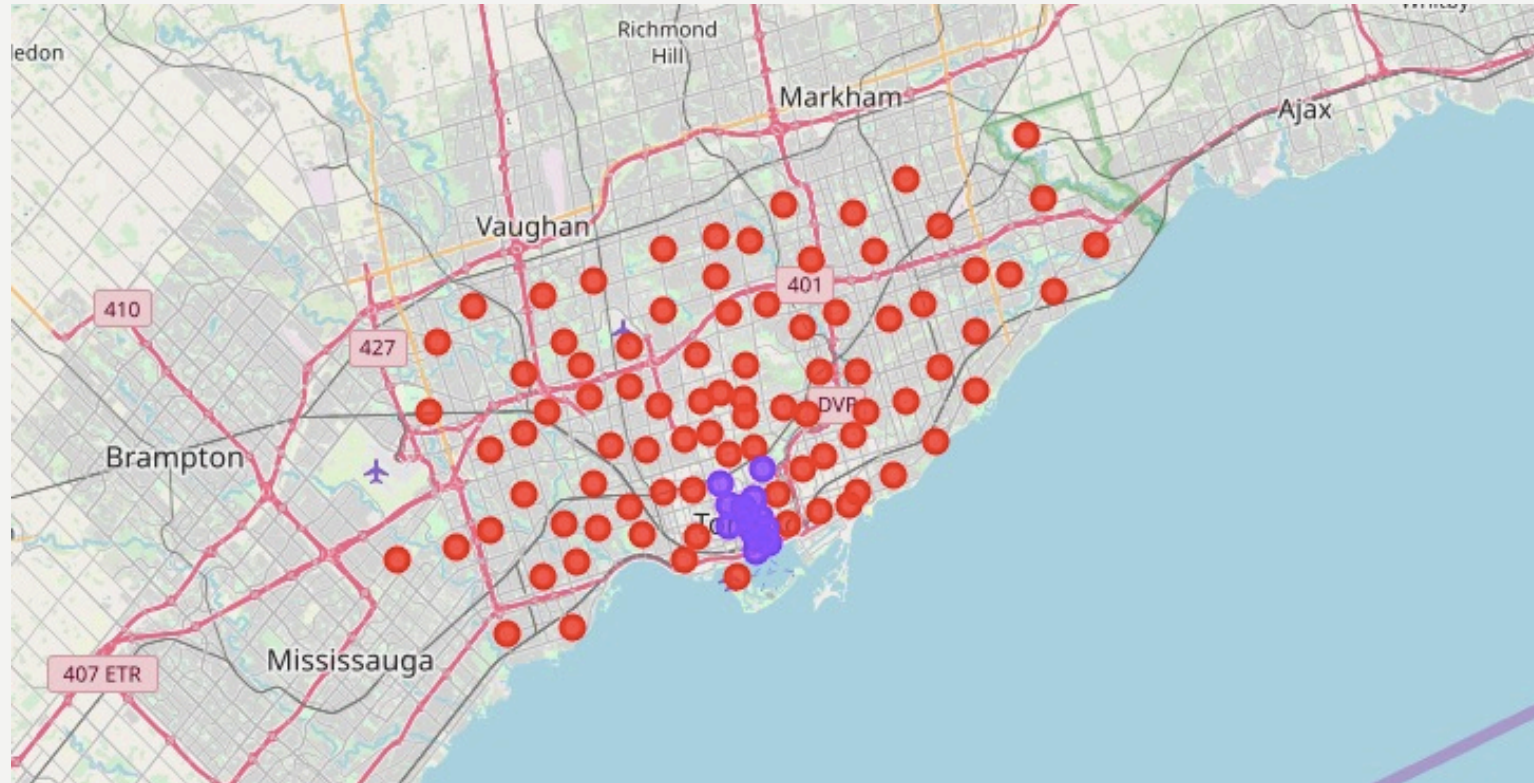


CHINESE RESTAURANT IN TORONTO

WANDI YU

CITY OVERVIEW

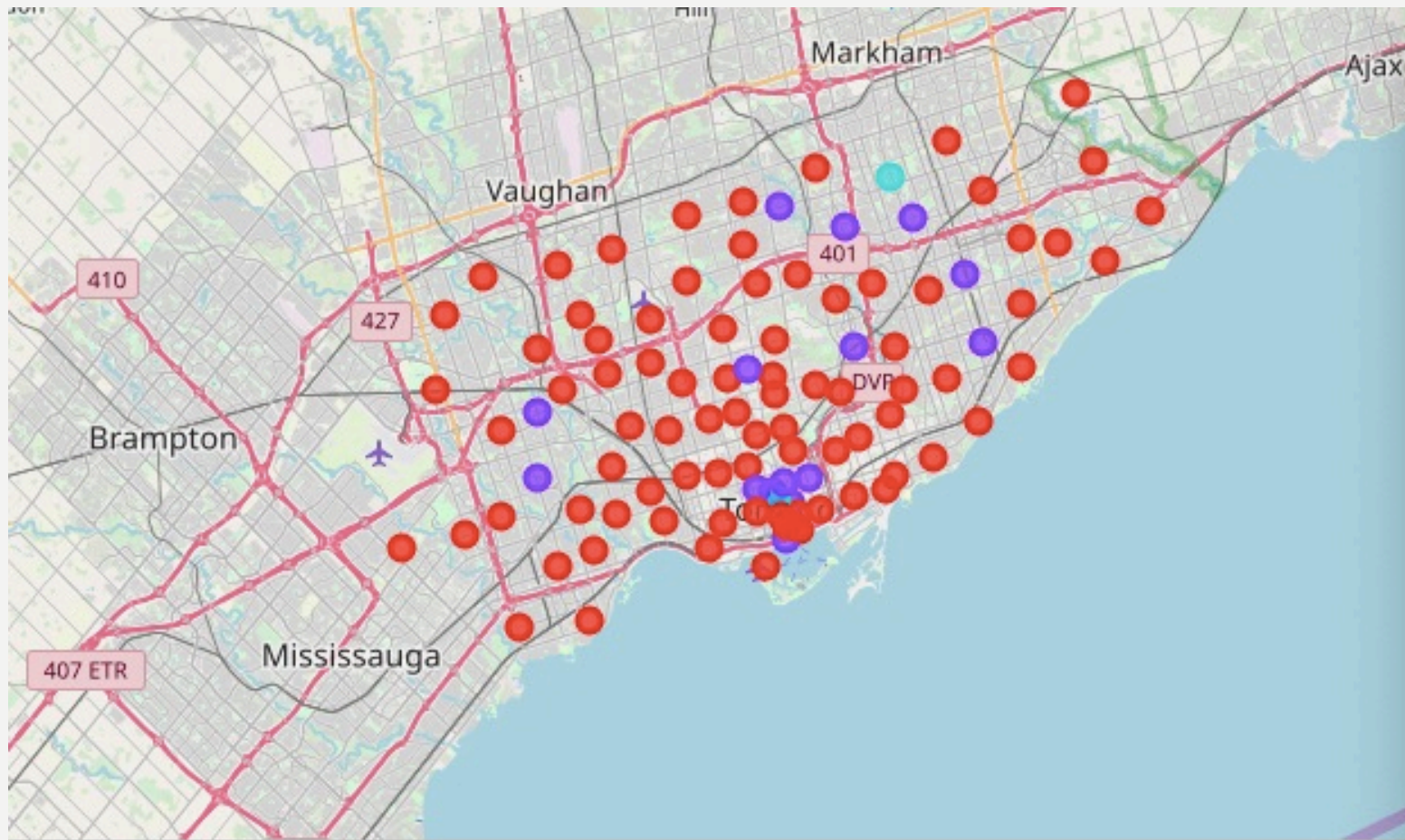


According to density of the neighborhoods, we divide Toronto into two parts:

City of Toronto

Outside the city of Toronto

CITY OVERVIEW: EXISTING CHINESE RESTAURANT IN TORONTO



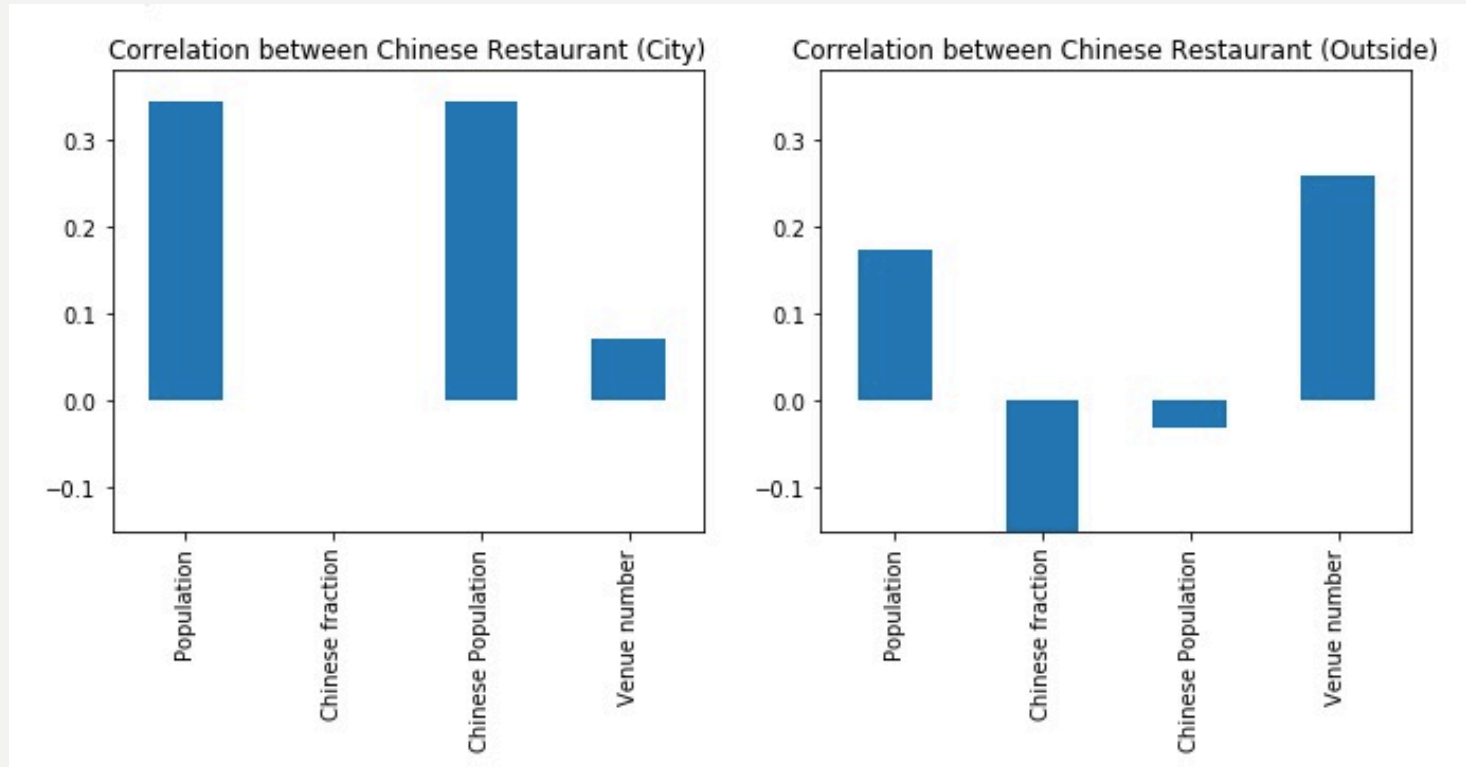
Number of Chinese restaurant

0

1

4

CORRELATION BETWEEN CHINESE RESTAURANT AND SEVERAL FACTORS



In City of Toronto:

Chinese restaurant tend to be built in the neighborhoods with higher population

Outside Toronto:

Chinese restaurant tend to be built in the neighborhoods with more venue numbers

CORRELATION BETWEEN CHINESE RESTAURANT AND OTHER VENUES

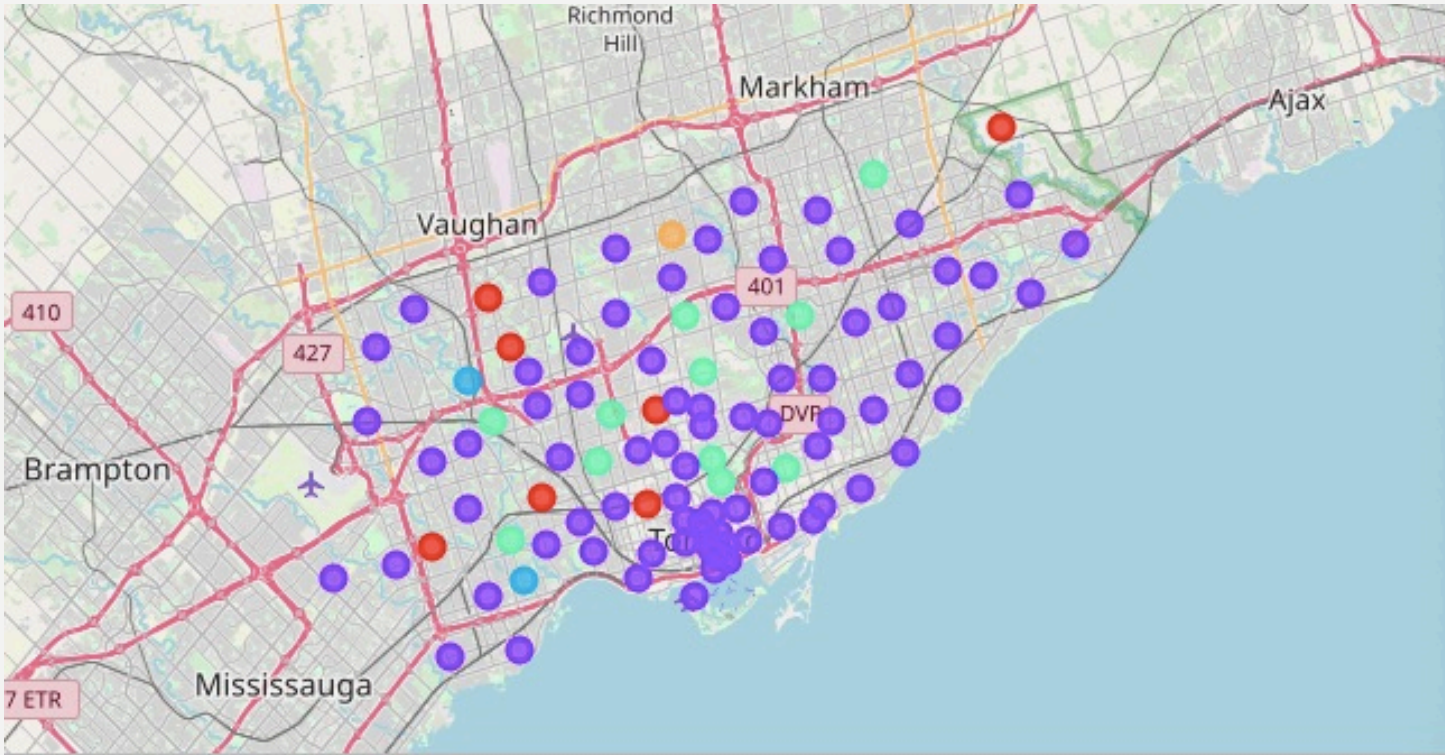
We find out these 8 venues are often appears in the same venue with Chinese Restaurant:

- Bank
- Café
- Department Store
- Gaming Cafe
- Department Store
- Indian Restaurant
- Thrift / Vintage Store
- Vietnamese Restaurant



CHINESE DUMPLINGS

GROUP OF NEIGHBORHOODS ACCORDING TO THEIR USE



Coffee shop and
restaurants

Baseball field and yoga
studio

Home service

Parks

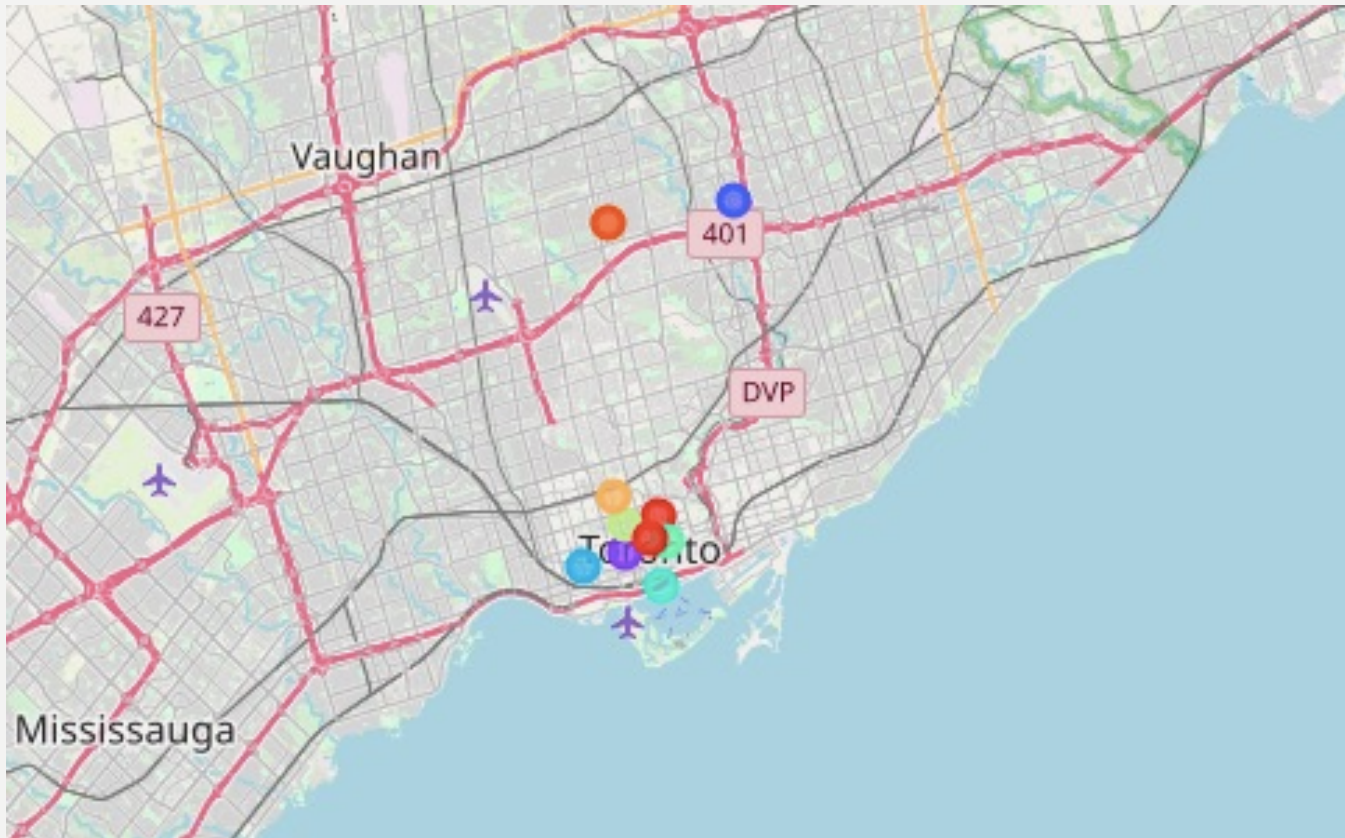
Grocery Store

All of the Chinese restaurants are
located in the coffee shop and
restaurant group!

BUILD UP THE MODEL

- 1. Only choose the neighborhoods in the coffee shop and restaurant group.
- 2. Regard Bank, Café, Department Store, Gaming Café, Department Store, Indian Restaurant , Thrift / Vintage Store, Vietnamese Restaurant as similar venues with Chinese restaurant, calculate their occurrence as an index of the recommendation system.
- 3. In the city of Toronto, consider population as another index;
Outside the city, also consider total venue numbers as another index

TOP 10 IDEAL NEIGHBORHOODS TO OPEN A CHINESE RESTAURANT



Neighbourhood
Church and Wellesley
Chinatown,Grange Park,Kensington Market
Fairview,Henry Farm,Oriole
Little Portugal,Trinity
Harbourfront East,Toronto Islands,Union Station
Ryerson,Garden District
Harbord,University of Toronto
The Annex,North Midtown,Yorkville
Willowdale South
Central Bay Street

DATA

- Basic neighborhood information: Wikipedia
- Population: Statistic Canada website: <https://www12.statcan.gc.ca>
- Venue information: <https://foursquare.com/>

MACHINE LEARNING MODEL

- Divide the city according to density: DBSCAN (density based clustering algorism)
- Group the neighborhoods according to its use: K-means Clustering
- Recommending neighborhoods: Content based recommendation system