

Applied Data Science Capstone - The Battle of Neighborhoods

Where to Open a New East Asian Restaurant in Toronto

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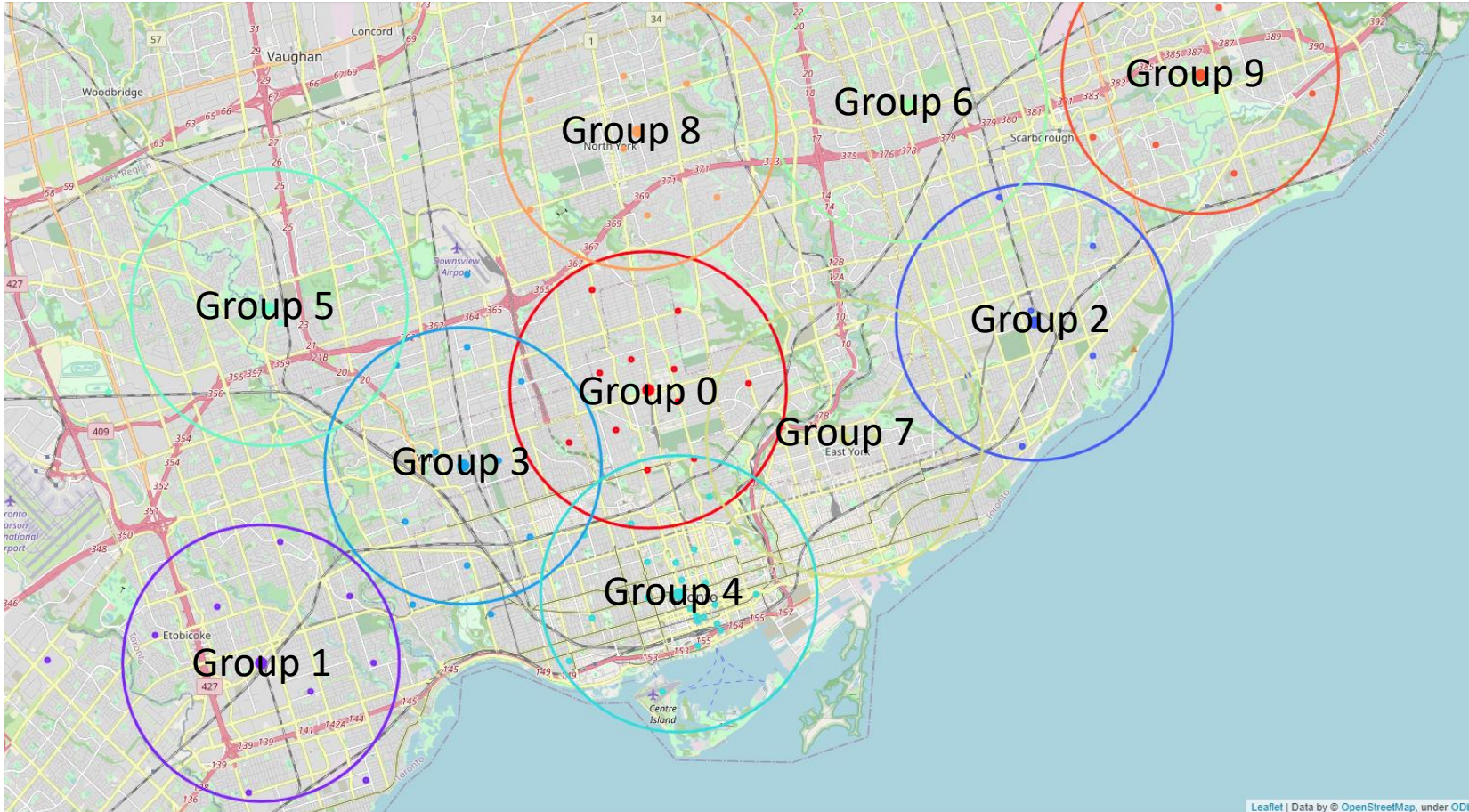
Introduction and Motivation

- Canada is an immigrant country and the number of immigrants are growing
- About 46 percent of population in Toronto are immigrants
- Immigrants bring diversity – food
- About 16.5% immigrants are from East Asian
- Open a new East Asian restaurant is appealing in Toronto

Data Acquisition

- Neighborhood information of Toronto:
 - https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M
- Latitude and Longitude of neighborhoods:
 - http://cocl.us/Geospatial_data
- Foursquare location data:
 - <https://foursquare.com>

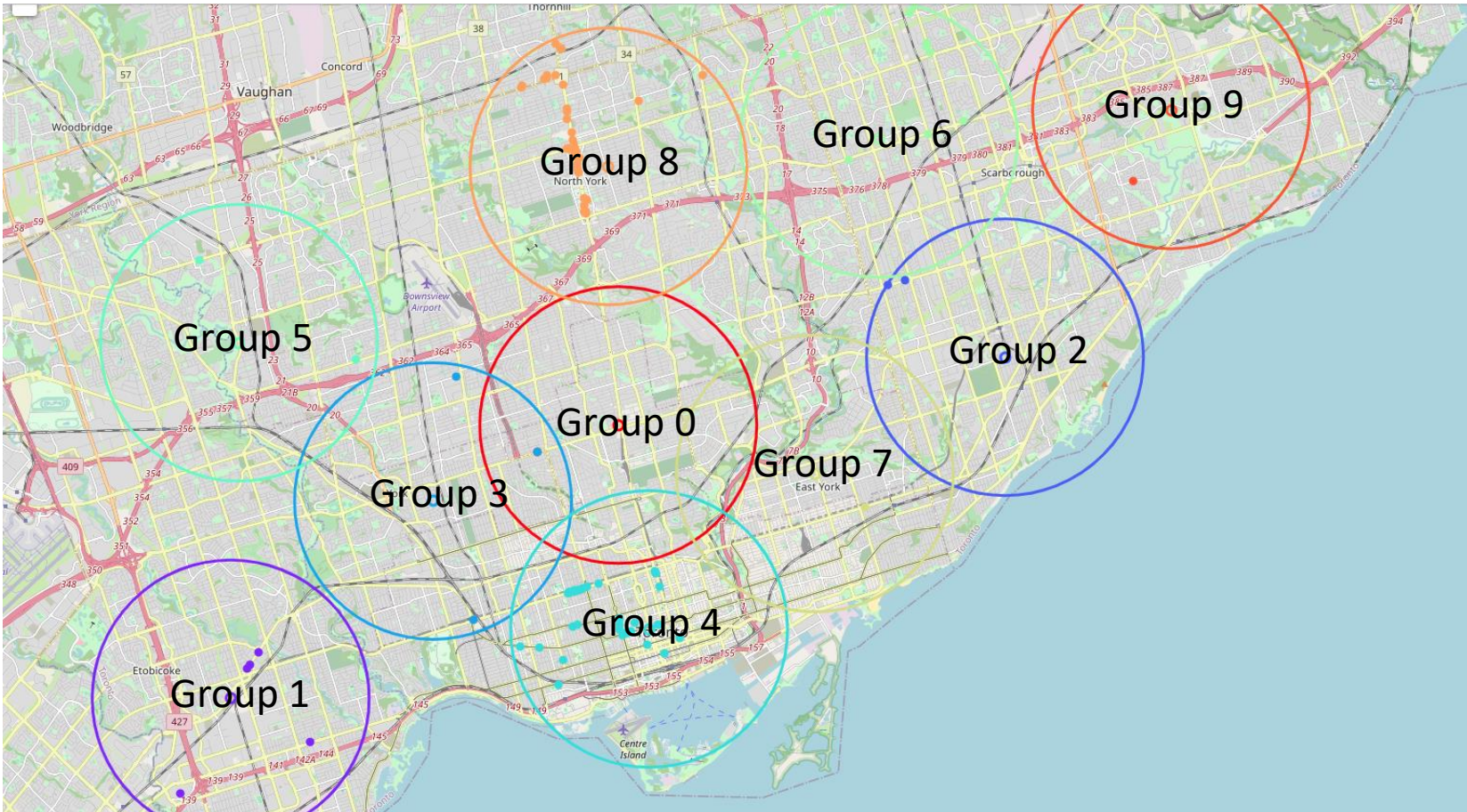
Groups of Neighborhoods – k-means



103 regions of Toronto are grouped into 10 groups according to the coordinates.

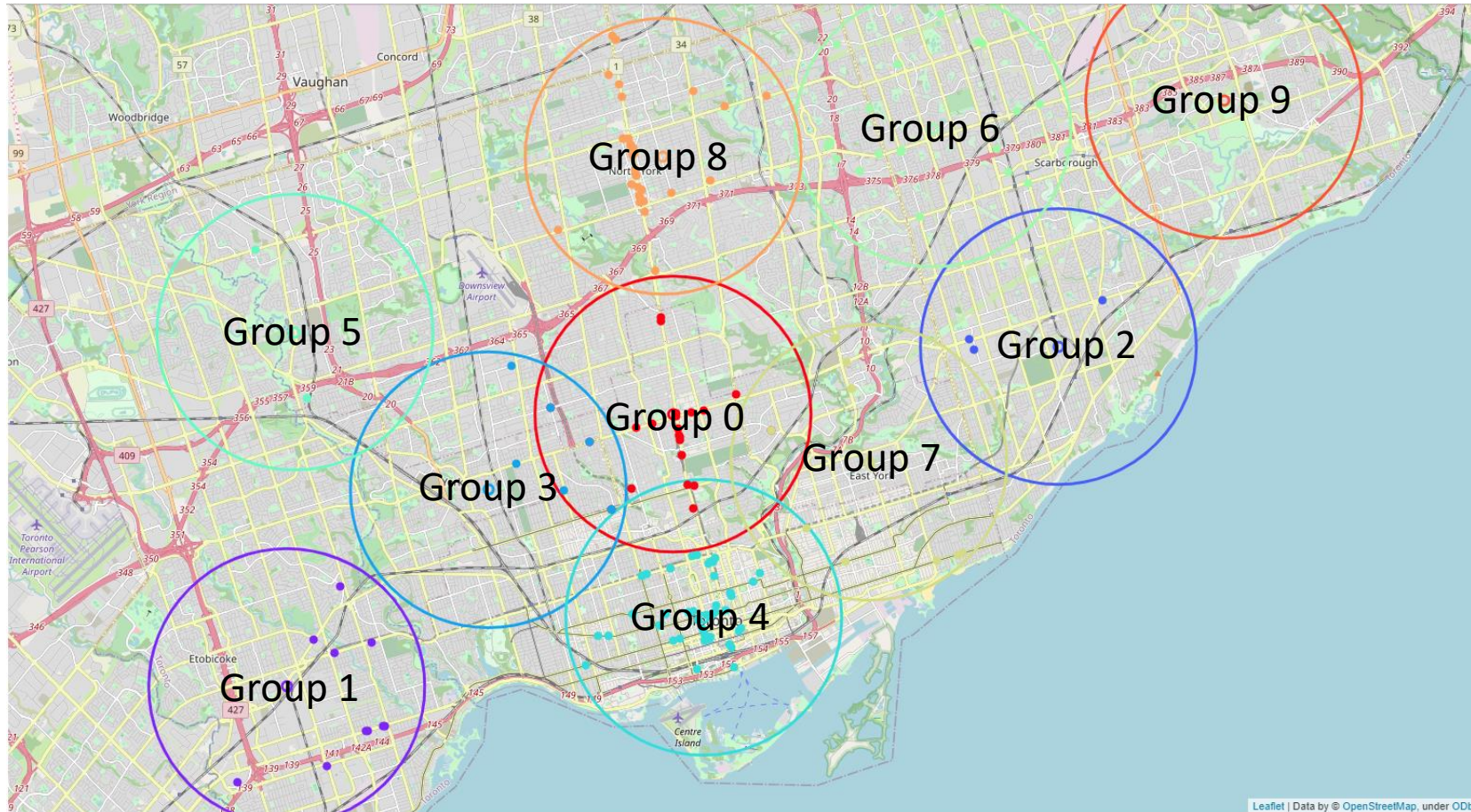
10 circles within the 4000-meter radius of the centers of each group cover most area of Toronto.

Korean Restaurants in Toronto



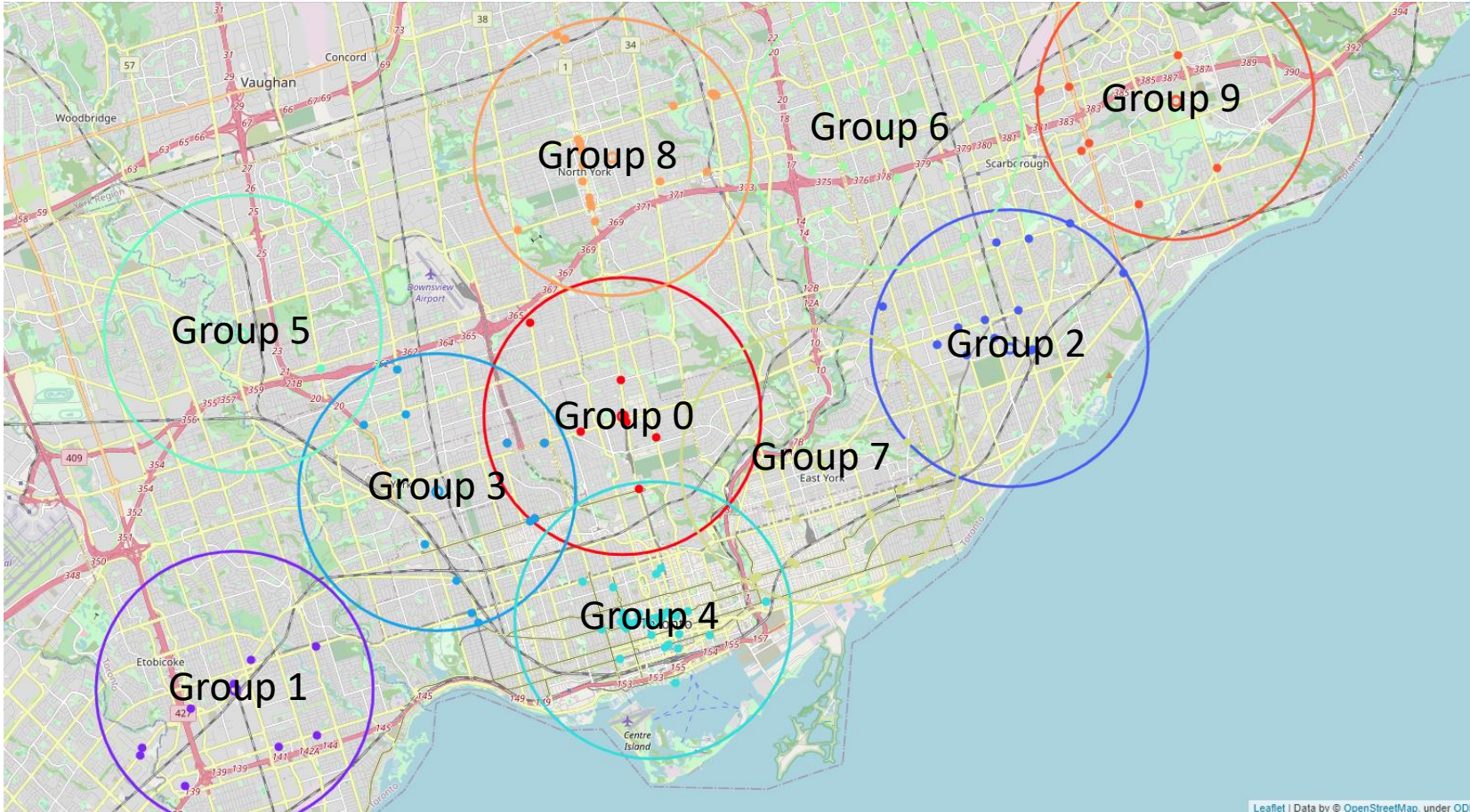
Korean restaurants are mostly found in Group 4 and 8 while the each of the other circles have no more than 5 Korean restaurants except Group 6

Japanese Restaurants in Toronto



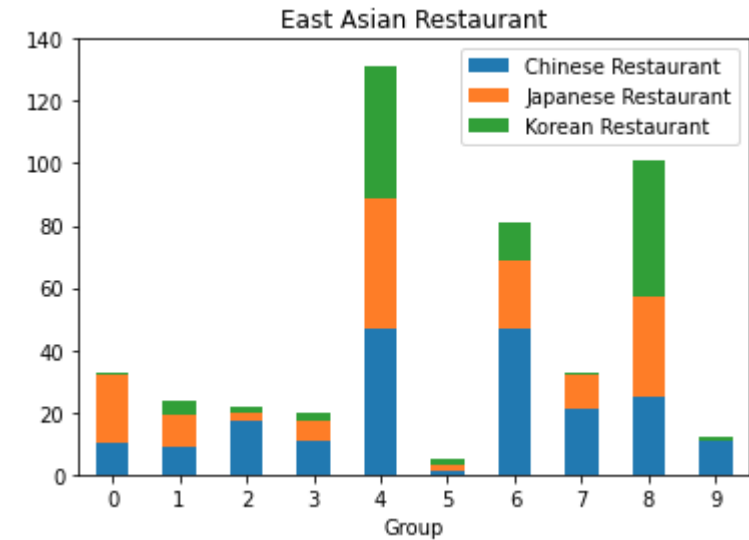
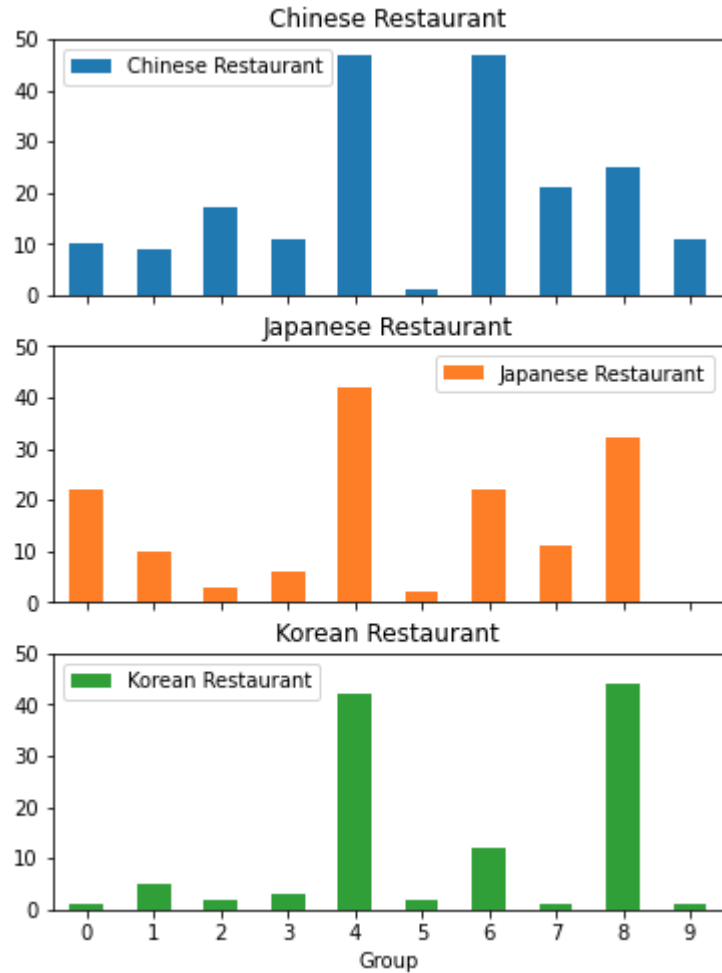
Japanese restaurants are more widely distributed in Toronto than Korean restaurants

Chinese Restaurants in Toronto



Chinese restaurants are distributed uniformly in Toronto compared to Korean and Japanese restaurants

Distribution of East Asian Restaurants



Group 5 and 9 are not quite crowded with East Asian Restaurants

Conclusion

- Group 5 is weak in competition for Chinese restaurants
- Japanese restaurant density is low in Group 2, 5 and 9
- Korean restaurants only have strong completions in Group 4, 6, and 8
- There are not many of East Asian restaurants in Group 5 and 9.
- The stakeholders can further investigate those neighborhoods to determine the final location to launch the new restaurant.