



CAPSTONE PROJECT

The Battle of Neighborhoods



Would you recommend a location in Toronto or New York City to open a new Peruvian restaurant?

INTRODUCTION

- The **increasing popularity of Peruvian food** has been unstoppable since 2011 and the Culinary Institute of America named "the Year of Peruvian Cuisine" in 2014.
- Therefore, my partner, who is a **Peruvian entrepreneur and a passionate of food**, **wants to open a new Peruvian restaurant**.
- He explains to me that the new restaurant should have **shopping places nearby and transportation facilities within 5 minutes**. He wants me concentrated on the selection of the restaurant's location according to its nearby environment. Restaurant facility and the rental price is not my concern.

This project will explore the similarities and dissimilarities between specific neighborhoods in the two cities, and determine which areas best fit the Peruvian restaurant customers

Analysis and inferential statistical testing performed

DATA SECTION & METHODOLOGY

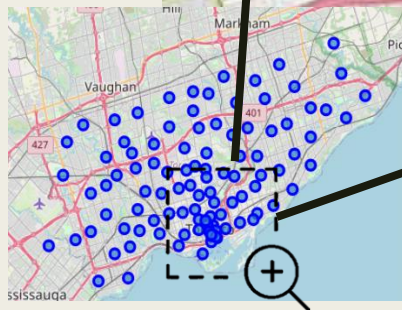
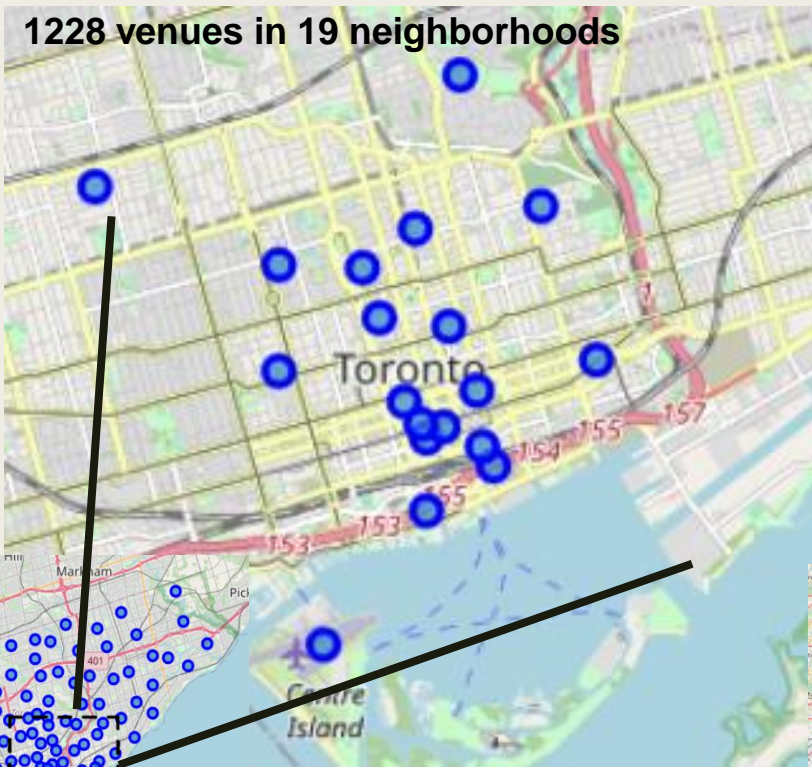
Nr.	Name of the package	Use of the package	Details of the package in the project
1	Requests	HTTP requests	HTTP requests would be made to this Foursquare API server using zip codes of Toronto and NY neighborhoods to find the latitude and longitude
2	Pandas	Data Analysis	Extensive analysis of two neighborhoods of Toronto and NY to get insights from the outcomes.
3	Numpy	Data in vectors	
4	Geopy	Retrieve location	Locate the coordinates of neighborhoods, addresses, cities, and landmarks across Toronto and NY.
5	Matplotlib	Plotting maps	Generate maps of data, vectors and lists of Toronto and NY
6	JSON	JSON files	Storage and exchange data
7	Folium	Map rendering	It would be used to visualize the neighborhoods cluster distribution of Toronto and NY city over an interactive leaflet map
8	Sklearn	Machine Learning	Unsupervised ML algorithm K-mean clustering would be applied to form the clusters of different categories of places around the neighborhoods. These clusters would be analyzed individually, collectively and comparatively to derive the conclusions.

Analysis and inferential statistical testing performed

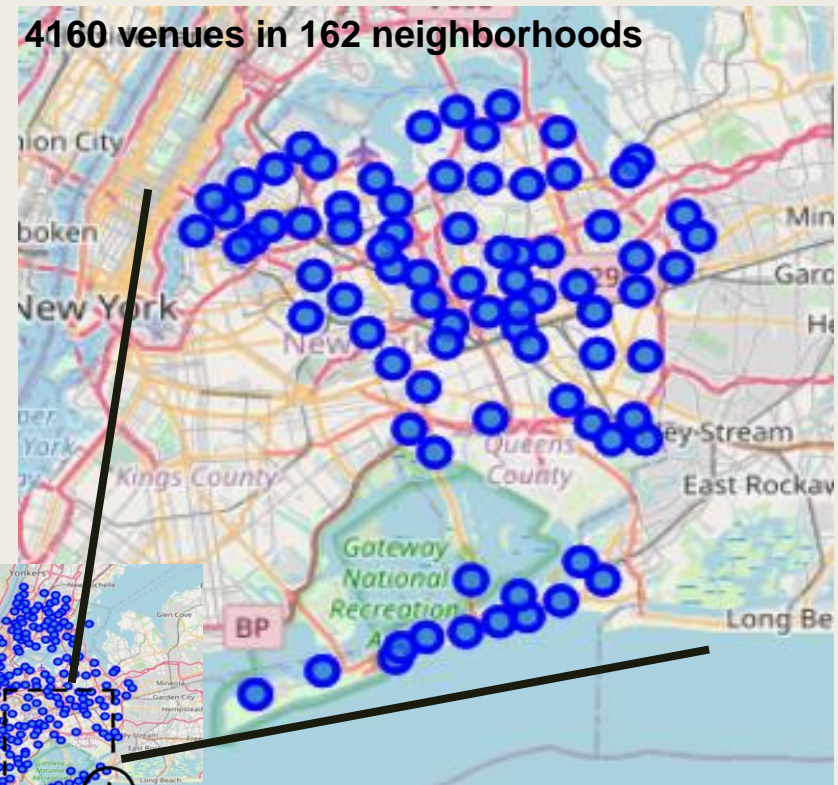
RESULTS

Downtown Toronto, Toronto city, Canada

Queens borough, New York city, US



Toronto city, Canada

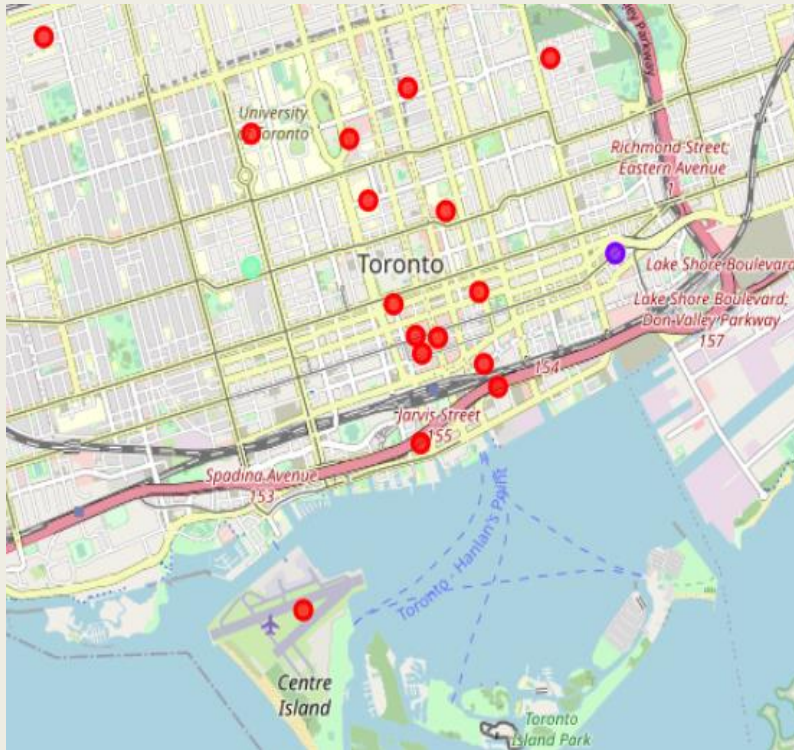


New York city, US

Analysis and inferential statistical testing performed

RESULTS

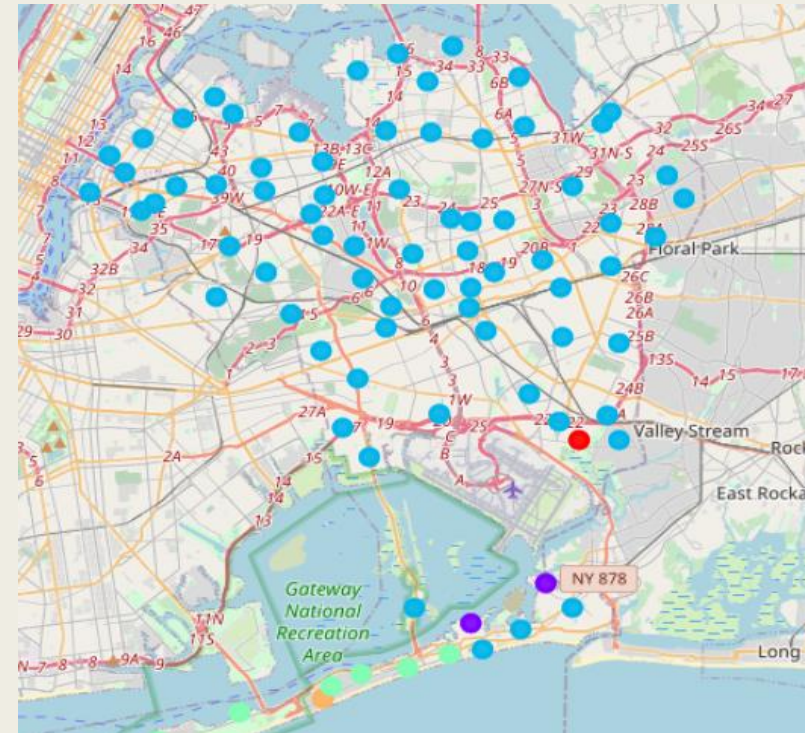
Downtown Toronto, Toronto city, Canada has 3 clusters:



Most popular venues are:



Queens borough, New York city, US has 5 clusters:



Analysis and inferential statistical testing performed

CONCLUSION

- In conclusion, based on the number of venues and a variety of places, I **would suggest considering Queens over Downtown Toronto** to locate a Peruvian restaurant.
- **Queens offers more options for extracurricular and outdoor activities** for individuals and families. Besides, **Queens is New York's largest borough, in which different cultures coexist, and it is the district that is evolving fast due to art, tourism, and cinema.**