

PROSPECTIVE LOCATIONS FOR AN ITALIAN RESTAURANT IN TORONTO

An analysis of relevant location and Foursquare data

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INTRODUCTION - TORONTO

- Toronto is the capital city of the Canadian province of Ontario.
- The most populous city in Canada and the fourth most populous city in North America.
- Toronto is an international centre of business, finance, arts, and culture, and is recognized as one of the most multicultural and cosmopolitan cities in the world.
- Attracts over 43 million tourists each year.
- More than 50 percent of residents belong to a visible minority population group, and over 200 distinct ethnic origins are represented among its inhabitants.
- This ethnic diversity accounts for a remarkably diverse range of restaurants catering to a myriad of palates.



BUSINESS PROBLEM

- A small group of investors who are based in the restaurant business have recently approached your firm for assistance. They are thinking of opening an Italian Restaurant within the GTA and have enlisted your firm in providing information with regards to ideal locations for the restaurant.



DATA

- Location Data of Toronto broken down by Borough and Neighbourhood. This data was obtained by scraping the Wikipedia page - https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada
- Geographical positioning coordinates (latitude & longitude) of the Toronto location data which was obtained using the Python Geocoder package.
- Foursquare location data. The Foursquare API was used to create a data frame of existing Italian restaurants within Toronto.
- Foursquare characteristics data which included, ratings, likes and tips of the Toronto Italian restaurants found.



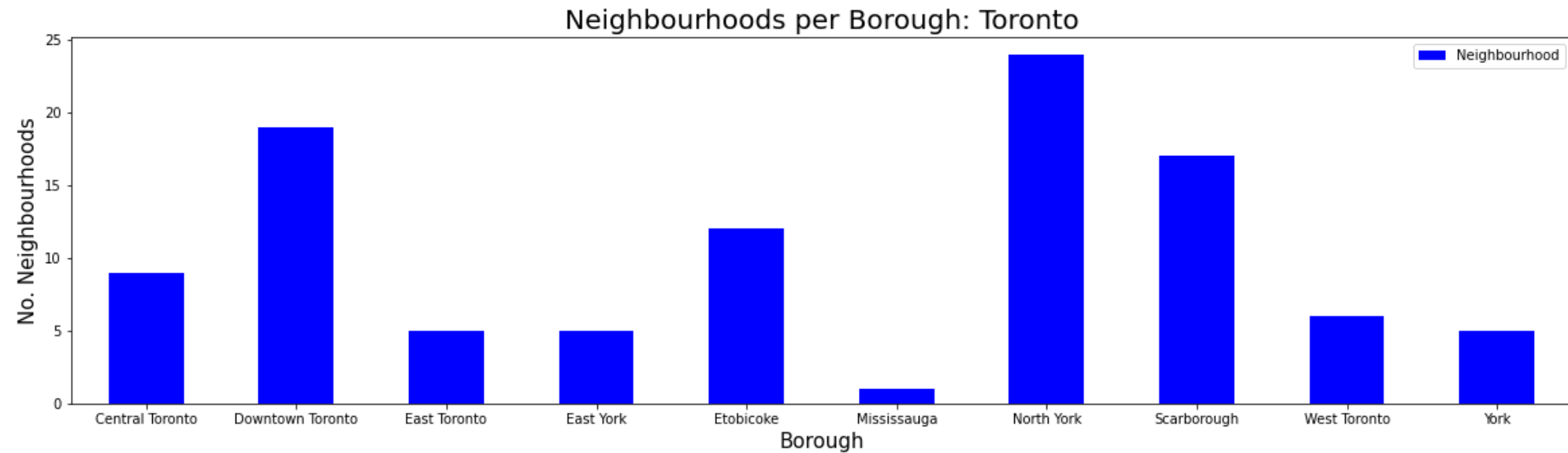
METHODOLOGY

- Importation of relevant Libraries
- Scraping the Wikipedia page
- Pre-processing of the raw location data
- Initial data visualization
- Defining of functions
- Defining of Foursquare credentials
- Call the Foursquare API for data
- Second data visualization
- Retrieval of restaurant characteristics data from Foursquare
- Preparation of characteristic data to allow for analysis
- Analysis of characteristic data



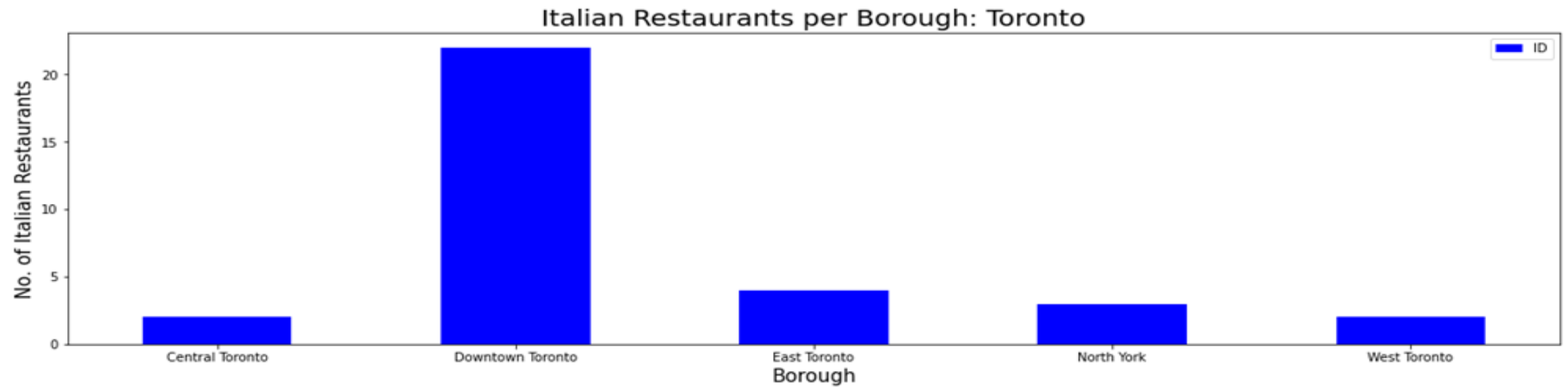
RESULTS

103 Neighbourhoods in 10 Boroughs



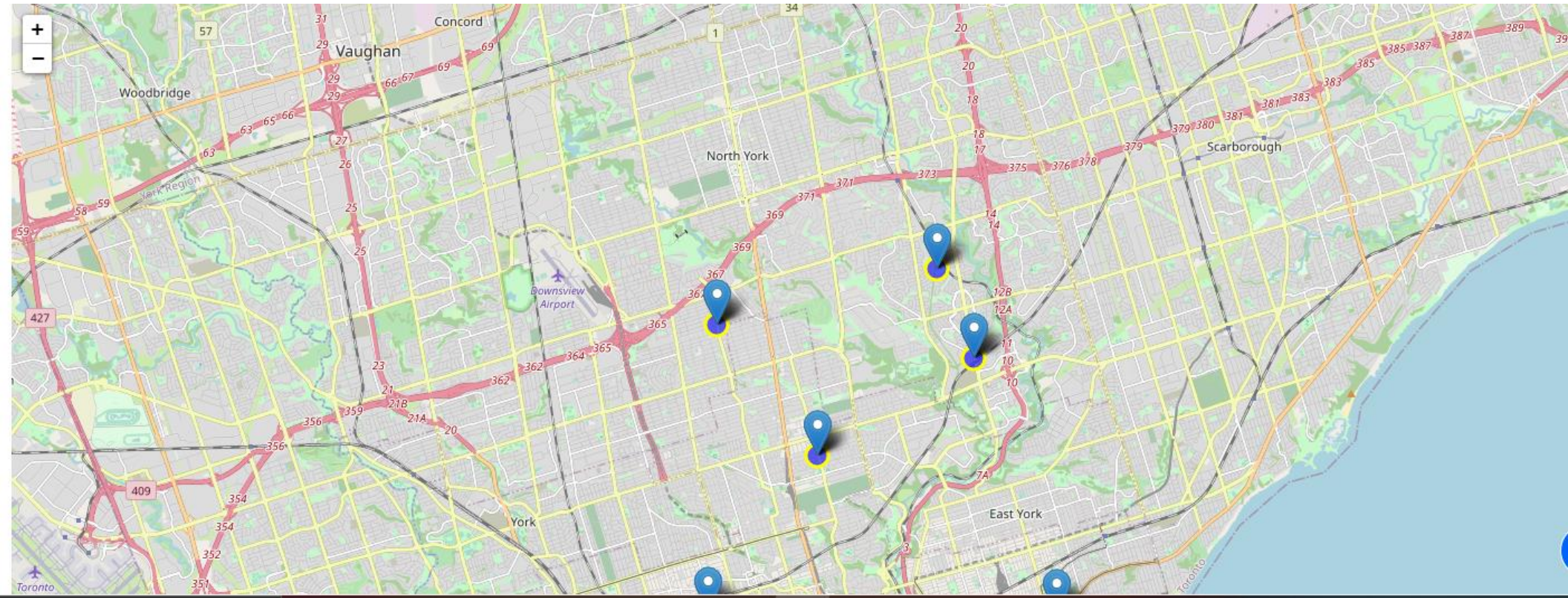
RESULTS

33 Italian Restaurants



RESULTS

Map of North York illustrating the sparsity of highly rated Italian Restaurants.



DISCUSSION

- The borough with the most neighbourhoods is North York
- The borough with the second most neighbourhoods is Downtown Toronto
- The highest number of Italian Restaurants is in Downtown Toronto
- North York had a significantly lower number of Italian Restaurants than expected given its Neighbourhood ratio
- Italian Restaurants in North York had the lowest ratings
- The criteria analysed here does not represent all the criteria one would use to determine where to open a restaurant but rather it gives supplemental information for the customer to consider
- This analysis depends greatly on the use of Foursquare data and its accuracy is therefore very subjective



CONCLUSION

- The evidence suggests that any Neighbourhood in the Borough of **North York** presents itself as an ideal location for an Italian Restaurant

