

Finding the prospects of  
opening an Indian restaurant in  
Toronto

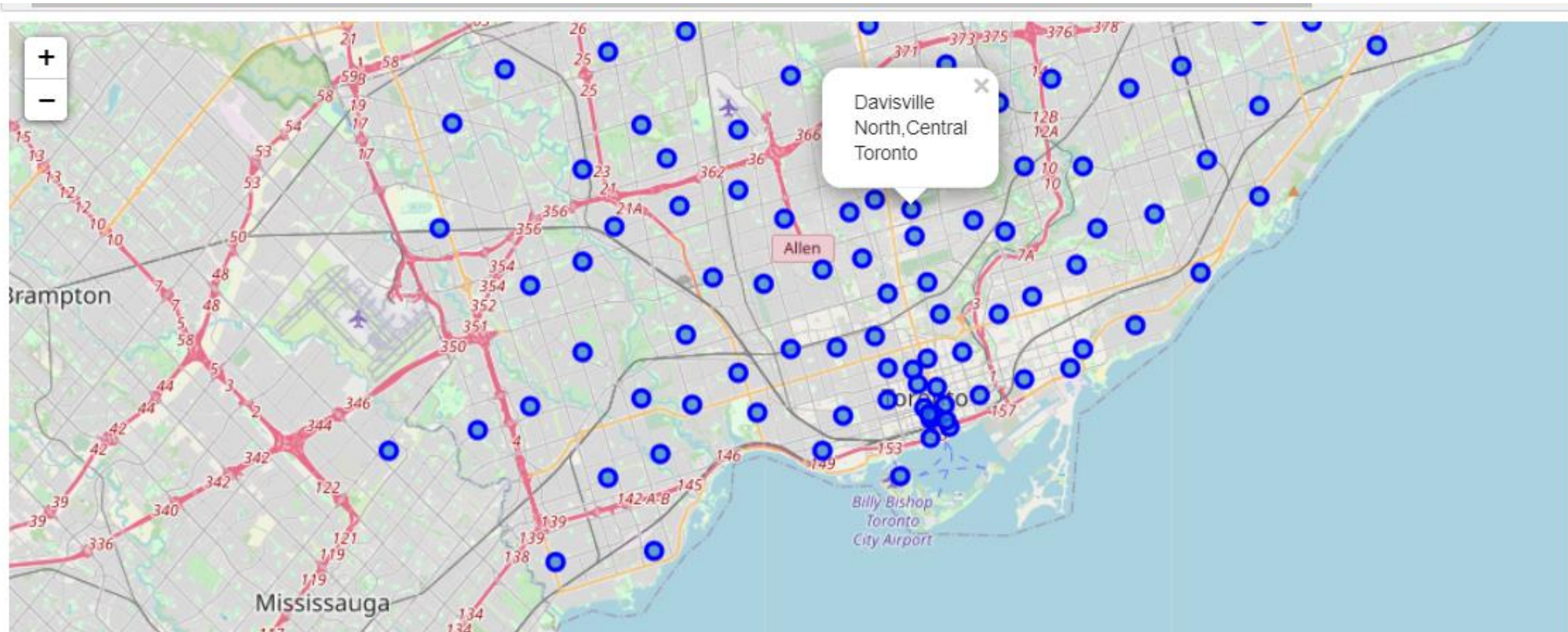
# Finding the business prospects is valuable

- Toronto has a high percentage of Indian immigrants. Therefore, there is a great demand for Indian cuisine which makes Toronto a favorable place to open an Indian restaurant
- This project:
  1. Helps business owners select the most favorable location from a business standpoint
  2. Lays the foundation for other data scientists for further geospatial analysis on such topics
  3. Acts as a tool for Indian tourists to find a popular place to eat Indian food in Toronto

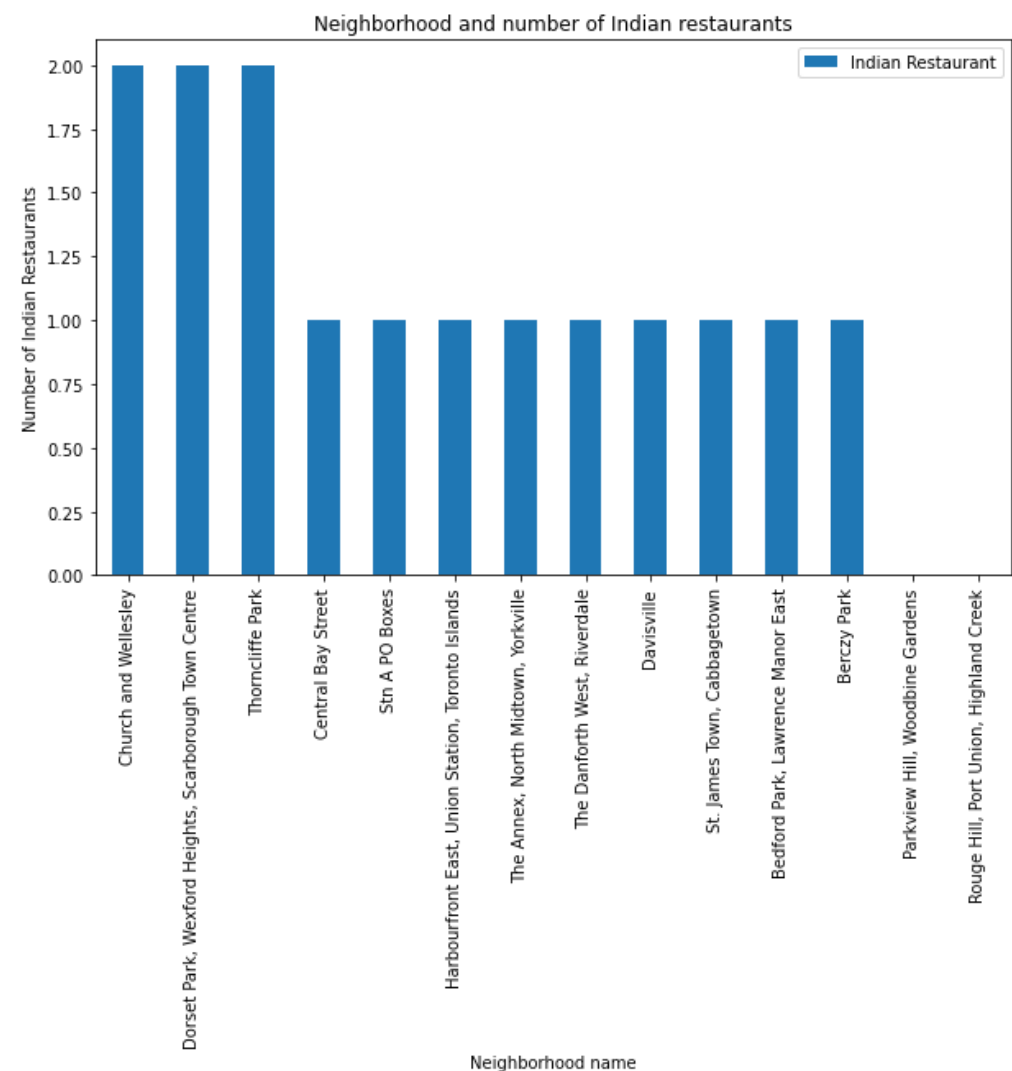
# Data acquisition and cleaning

- **Information on Toronto's neighborhoods** (Postal code, borough, name of neighborhood) from [https://en.wikipedia.org/w/index.php?title=List of postal codes of Canada: M&oldid=1012118802](https://en.wikipedia.org/w/index.php?title=List_of_postal_codes_of_Canada:_M&oldid=1012118802)
- **Geographical coordinates of neighborhoods** from [https://cocl.us/Geospatial\\_data%E2%80%9D](https://cocl.us/Geospatial_data%E2%80%9D)
- **Foursquare API** used to collect information about venues in Toronto such as name, category, latitude, and longitude (<https://developer.foursquare.com/docs/>)
- **Demographics of Toronto's neighborhoods by ethnicity scraped to** an insight into the distribution of Indians in Toronto and help identify neighborhoods where opening an Indian restaurant can attract most customers ([https://en.m.wikipedia.org/wiki/Demographics of Toronto#Ethnic diversity](https://en.m.wikipedia.org/wiki/Demographics_of_Toronto#Ethnic_diversity))
- Cells which were not assigned a borough were dropped
- Cells which were not assigned a neighborhood were given the same neighborhood name as their borough name

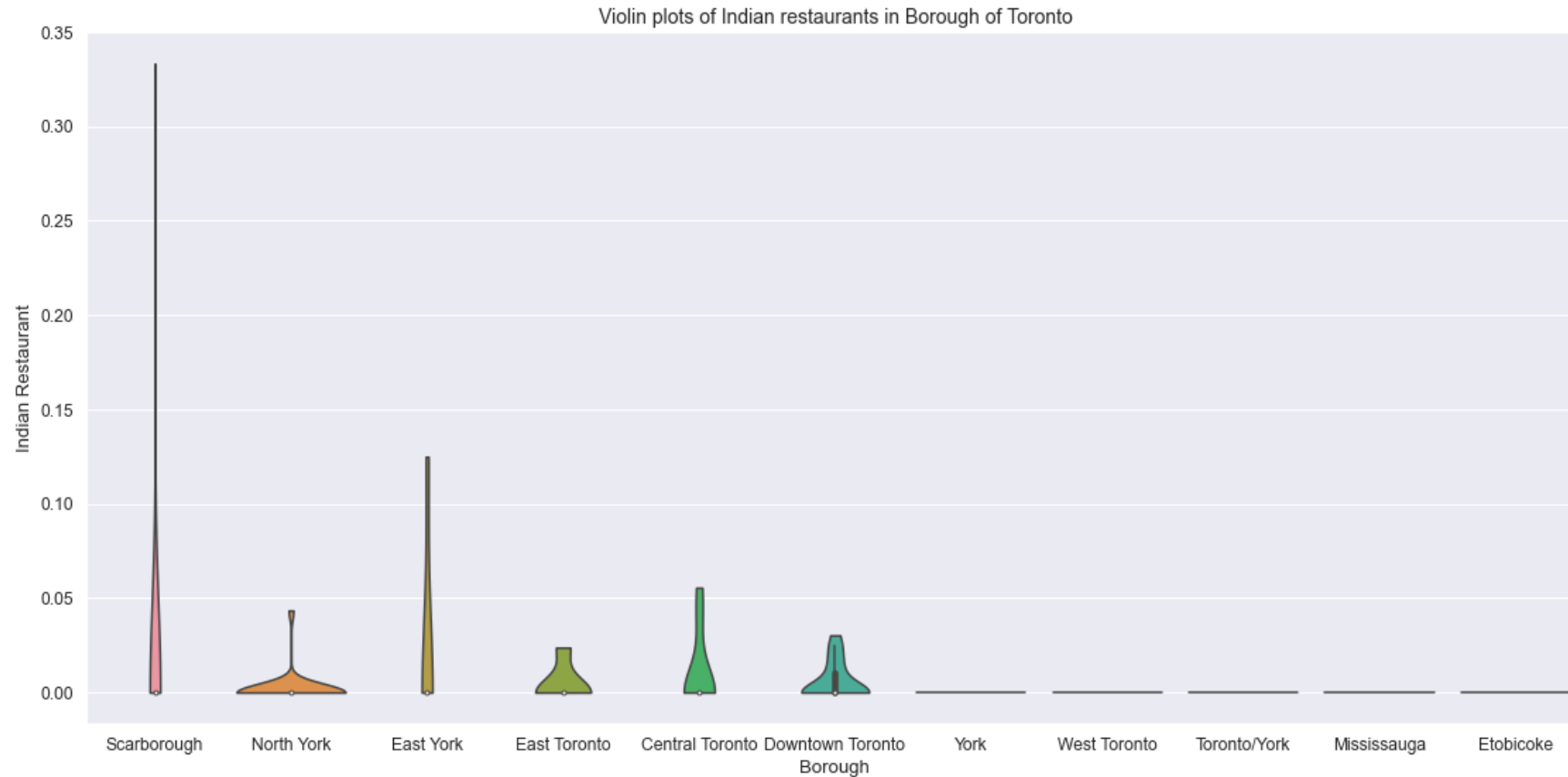
# Leaflet map of Toronto Neighborhoods



# Bar chart - Neighborhood and Indian restaurant

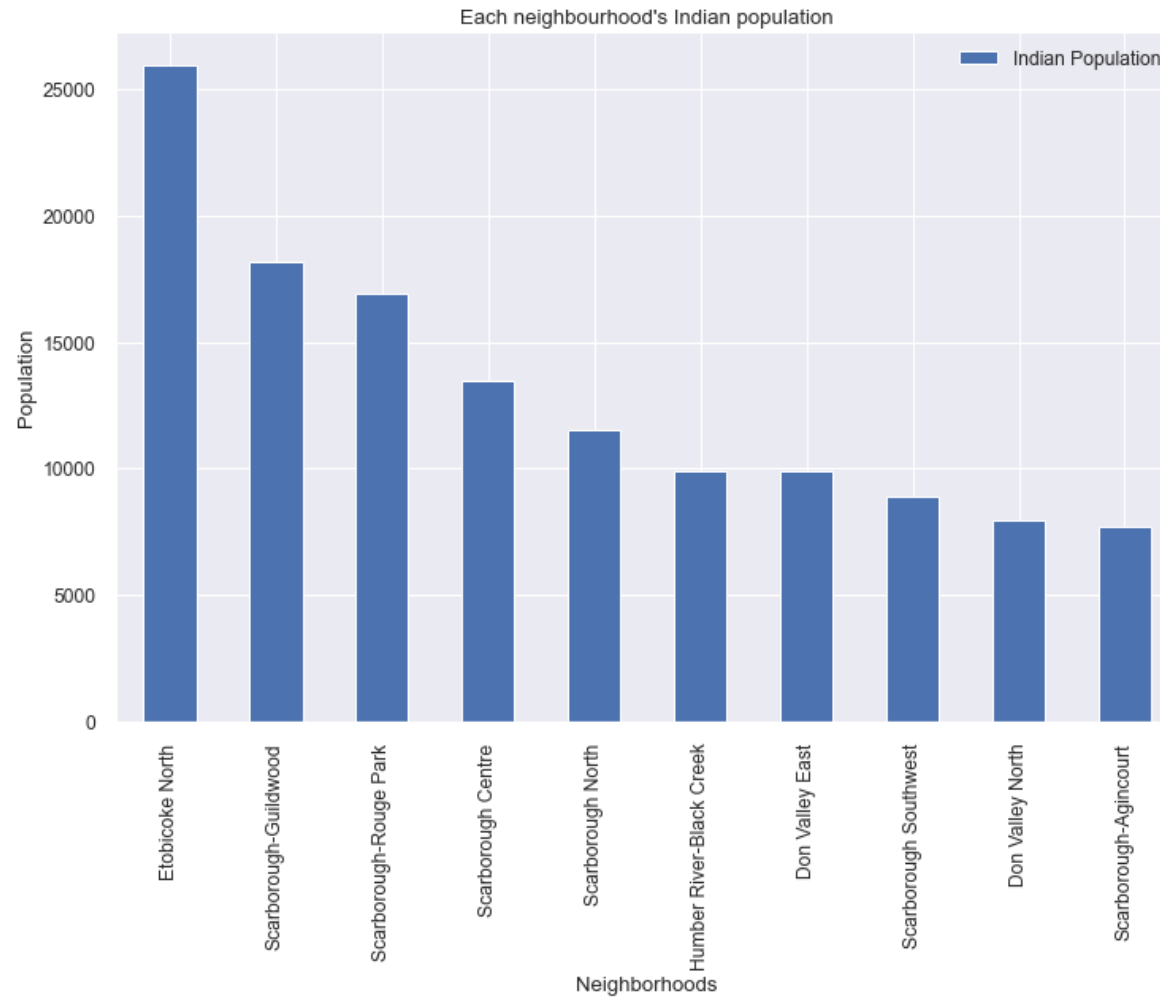


# Violin plot - Neighborhood and Indian restaurant

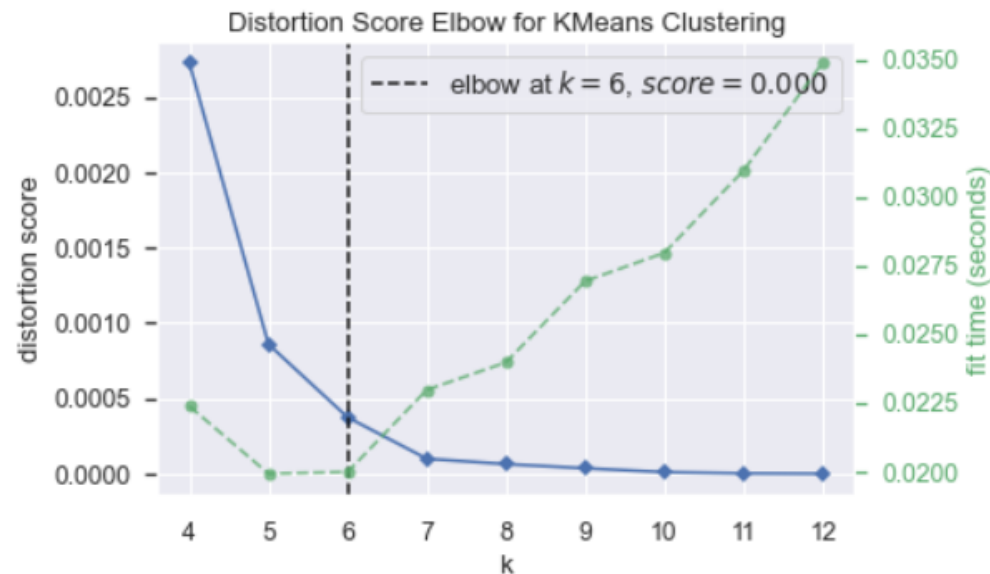
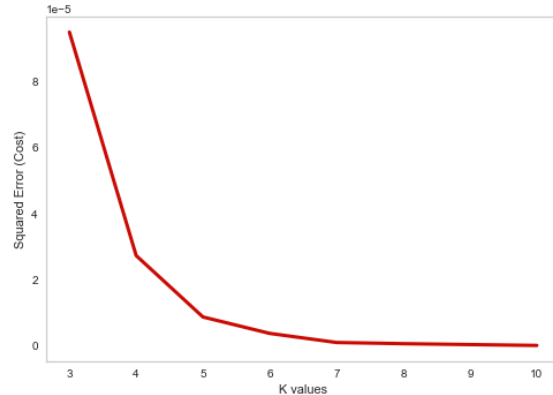


We can see that Scarborough, North York, East York, East Toronto, Central Toronto and Downtown Toronto Borough have a high density of Indian restaurants

# Distribution of Indian population



# K-means classification model



After analyzing the squared error and elbow distortion score, I decided that K=6 will be the best value for our analysis



# Conclusions and future directions

- Built useful models which helps businesses evaluating the success of an Indian restaurant in Toronto
- Also benefits multiple other stakeholders
- This tool can be tweaked a bit and applied to different venues for different locations
- Accuracy of the model has room for improvement
- Can take additional metrics such as reviews and ratings to determine the success of a restaurant