

Determining a Restaurant Location

Applied Data Science
Capstone

Yukti Jain



Situation

- ▶ North York is the fastest growing cities in Toronto, Ontario, Canada
- ▶ North York is a cross-section of inhabitants which includes students and long-time residents, giving the city an eclectic feeling of being both local and international.
- ▶ According to the North York City 2016 Census of Toronto Community Council Area Profiles, this multicultural and multiracial city has a population of 691,595 with a population growth of eight percent.



North York Rise and Grind

- ▶ North York Rise and Grind will appeal to the millennial customer of North York's eclectic vibe, with the following location criteria.
 - ▶ Bakery
 - ▶ Boutiques
 - ▶ Coffee Shops
 - ▶ Cafe



Data Sources

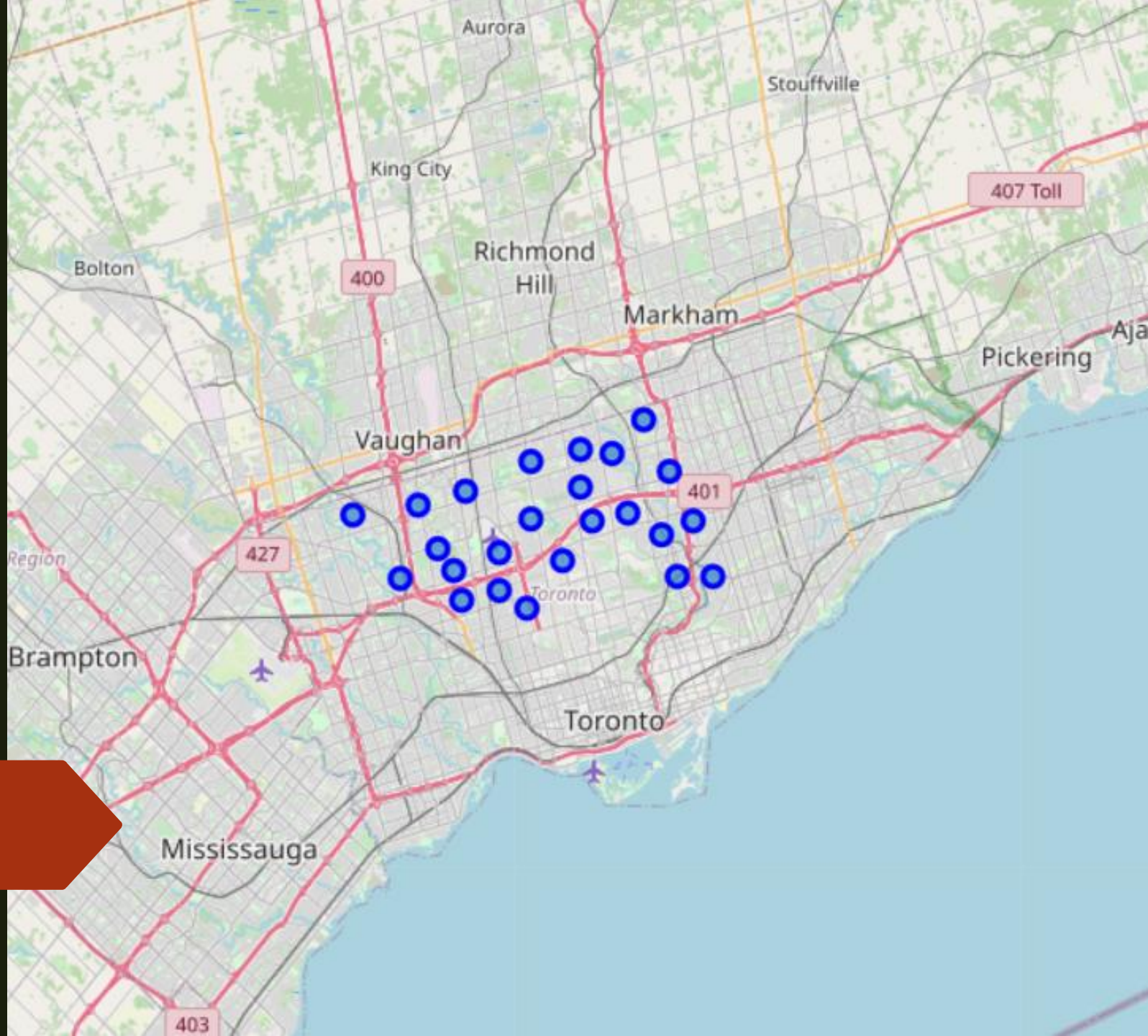
- Canada census data for 2011 and 2016 by province, territory, city and neighborhood was acquired from Statistics Canada
- Canada neighborhood postal codes were obtained from Wikipedia
- Geospatial coordinates were acquired from the Coursera Capstone Course
- Venue data from Foursquare



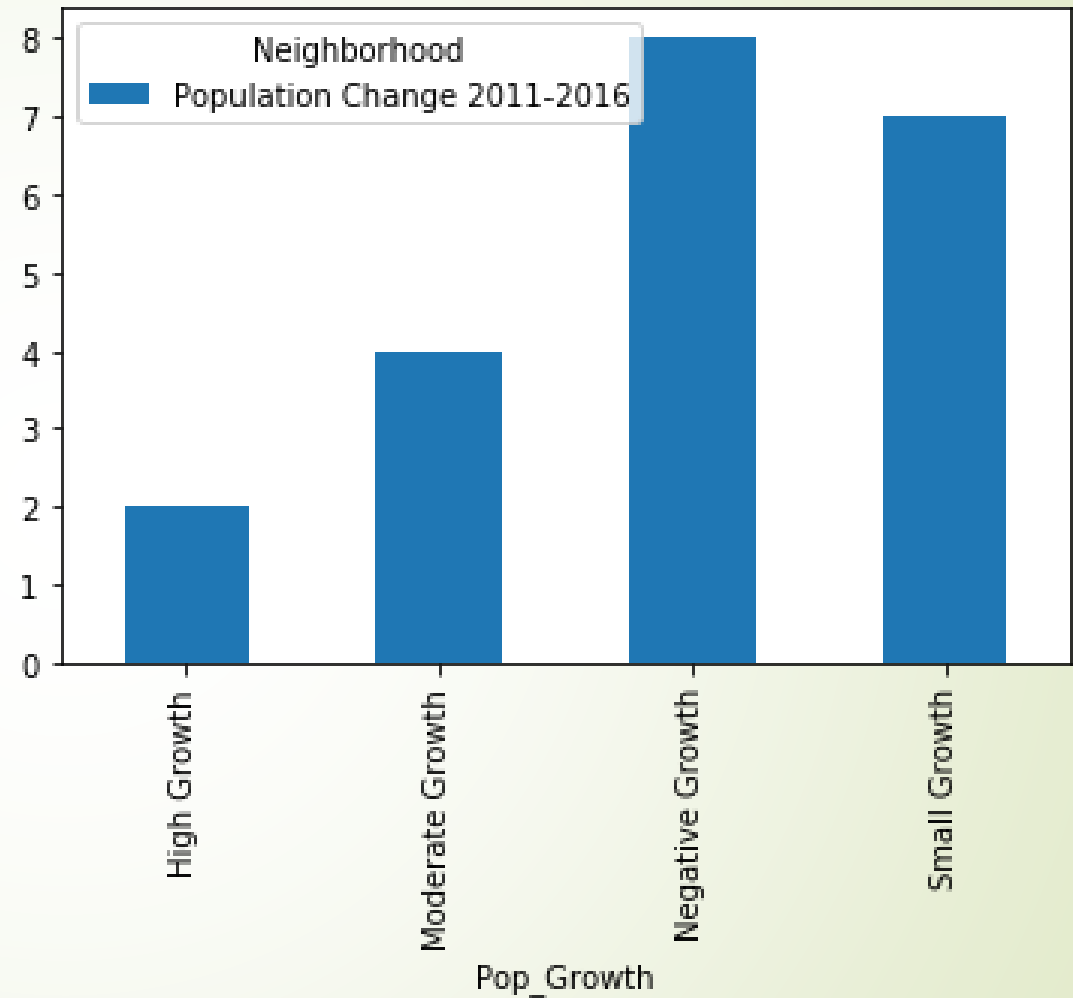
Data Cleaning

- Canada census data for 2011 and 2016
 - Id
 - neighborhood
 - characteristic (census question)
- Canada neighborhood postal codes
 - Postal code
 - borough
 - neighborhood
- Geospatial coordinates
 - postal code
 - latitude
 - longitude

North York Neighborhoods

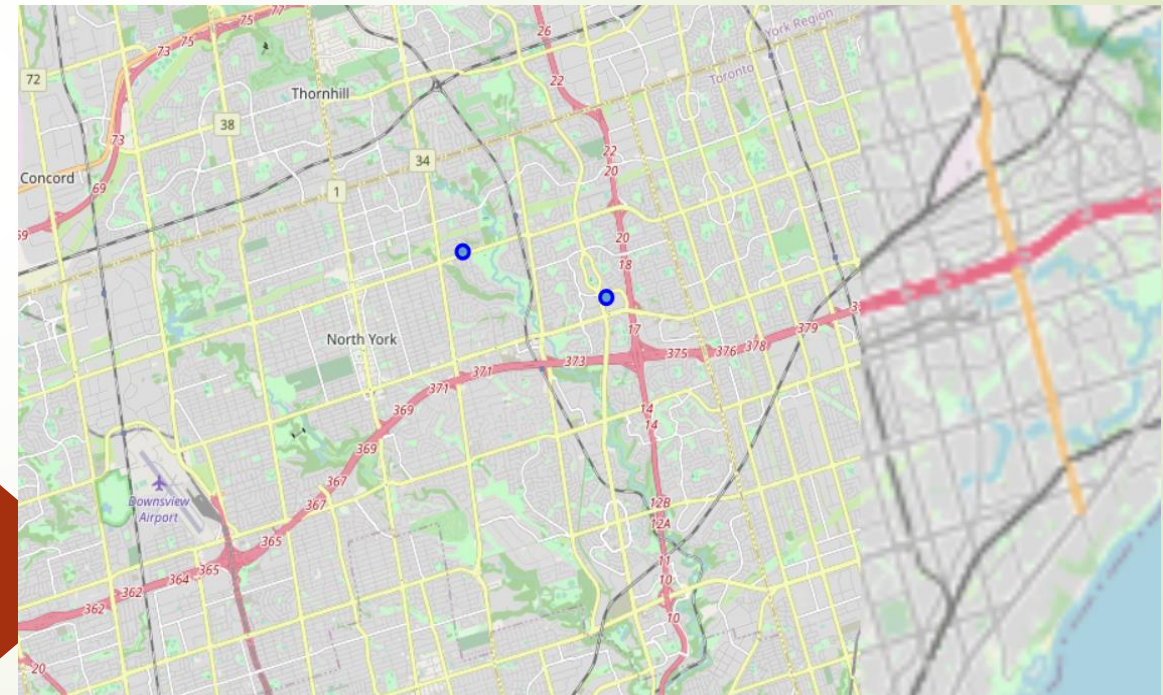


North York Neighborhood Population Change



Most Likely Neighborhoods

| Neighborhood | Population Growth Percentage | Population Growth Category |
|-----------------|------------------------------|----------------------------|
| Bayview Village | 21.10% | High Growth |
| Henry Farm | 38.70% | High Growth |



Venues

| Neighborhood | Bakery | Boutique | Breakfast Spot | Café | Coffee Shop |
|--|--------|----------|----------------|------|-------------|
| Fairview, Henry Farm, Oriole | 2 | 1 | 0 | 0 | 5 |
| North Park, Maple Leaf Park, Upwood Park | 1 | 0 | 0 | 0 | 0 |

Fairview, Henry Farm, Orieole Venues

| Venue | Category |
|--------------------|-------------|
| Michel's Baguette | Bakery |
| Starbucks | Coffee Shop |
| Aroma Espresso Bar | Coffee Shop |
| Tim Hortons | Coffee Shop |
| Tim Hortons | Coffee Shop |
| Tim Hortons | Coffee Shop |
| BCBG Max Azria | Boutique |
| Michel's Baguette | Bakery |

Fairview, Henry Farm, Oriole

| Neighborhood | Coffee Shop | Rating | Tips |
|---------------------------------|-------------|--------|--|
| Fairview, Henry Farm, Oriole | 2 | 6.8 | Coffee is really good. A little bit noisy, but still a nice place to relax in the mall |



Conclusion

- Venue clustering was used to determine that Henry Farm is the best location to open the restaurant given its increase in population growth and venue categories, as well as the little to no competition.