



Using Machine Learning to find Locations
to Open an Indian Restaurant in Toronto,
Canada.

Introduction:

- For this Capstone Project I am creating model for a restaurateur to open an Indian Restaurant in Toronto, Canada.
- Indian food is very popular in Canada because a large number of immigrants.
- As a restaurateur I must be convinced that my restaurant will make profit in the competition.
- With this purpose, I will use machine learning techniques to find an ideal location to start my restaurant.

Business Problem

- This purpose of this project is to find an ideal location to start an Indian restaurant in Canada. In this project classification methods will be used to address the problem of finding an ideal location.

Target Audience

- Restaurateur who wants to start an Indian restaurant in Toronto.

Data/ Extracting Data



Data: To solve this problem we will need: List of neighborhoods in Toronto. Latitude and Longitude of the neighborhood Venue data of Indian restaurant.



Extracting Data: Scrapping Toronto Neighborhood via Wikipedia
Getting Latitude and Longitude via geocoder package Venue Data from the four square API

- The results show different number of Indian restaurant in different neighborhoods. These neighborhoods are classified into 3 clusters; each cluster represents the number of Indian restaurants in different neighborhood.

Results

- As we can see that the lowest number of Indian restaurants are in cluster 1. Hence, the competition is low in cluster 1 to open an Indian restaurant. Hence, it would be profitable to start an Indian restaurant at cluster 1 from a data standpoint. The restaurant should be open at The Danforth West, Riverdale because of less clustering.

Recommendation

Conclusion

- In this Capstone project, I have introduced the business problem, extracted the data from various sources and created a k-means algorithm and gave my suggestion on the problem using the data and clustering methodology.



References



LIST OF NEIGHBORHOOD IN TORONTO:
[HTTPS://EN.WIKIPEDIA.ORG/WIKI/LIST_OF_POSTAL_CODES_OF_CANADA:_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M)



FORESQUARE DEVELOPER API:
[HTTPS://FOURSQUARE.COM/DEVELOPERS](https://foursquare.com/developers)