

Italian Restaurants in Toronto

Introduction: I aimed to utilize data of postal codes and the Foursquare API to create a list of all the Italian restaurants within the 10 clusters of the city of Toronto. This data could be used by tourists or locals to find where to go if they are craving Italian. It could also be utilized by a restaurateur trying to find where to open an Italian restaurant in Toronto.

Data: I utilized the data on Postal codes from Toronto Wikipedia page to get neighborhoods and postal codes. Then I utilized another previous csv file of the latitude and longitude of each to attach to that dataframe. I then utilized the Foursquare API to make search calls for Italian restaurants.

Methodology: I utilized the data of postal codes and coordinates to cluster using a KMeans clustering system. I created 10 clusters in the system and mapped them on a Folium map of Toronto. I then found the centers of these clusters and made calls to the API searching for Italian restaurants within 5000 m of the centers of each cluster.

Results and Discussion: I started by using 3000 as my radius but found that some areas did not have Italian restaurants within that distance. Then, with 5000 meters as my radius, I found that every cluster had some Italian restaurants. Clusters 4 and 9 clearly had the most with well over 20 Italian restaurants in their clusters.

Conclusion section: Overall, my data suggests that Clusters 4 and 9 are best for tourists and the worst for someone looking to open an establishment. I think it's interesting that the Italian restaurants are not uniformly distributed. This must mean that some communities have more desire for Italian restaurants or could have higher Italian-descendant population.