

Italian Restaurants in Toronto

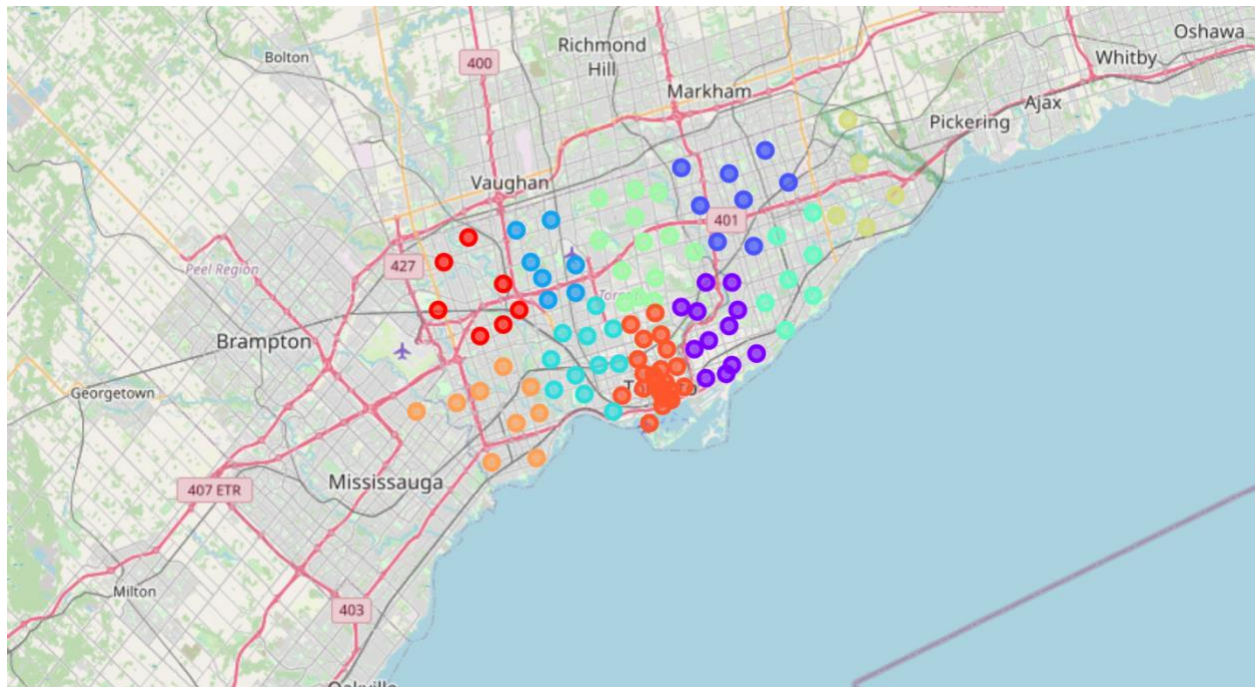
Introduction: I aimed to utilize data of postal codes and the Foursquare API to create a list of all the Italian restaurants within the 10 clusters of the city of Toronto. This data could be used by tourists or locals to find where to go if they are craving Italian. It could also be utilized by a restaurateur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



Cluster 2

it[100]:

	id	name	latitude	longitude	address
0	4b5a2bf2f964a520deb128e3	Remezzo Italian Bistro	43.778649	-79.308264	[3335 Sheppard Ave E (at Warden Ave.), Scarbor...
1	4b6755d0f964a520c6482be3	Basilico Italian Bistro	43.786527	-79.328686	[2746 Victoria Park Ave., Toronto ON, Canada]

i [102]: 3

Cluster 4:

	id	name	latitude	longitude	address	location.neighborhood
0	4aedafd1f964a52025ce21e3	Commisso Bros. & Racco Italian Bakery	43.697621	-79.468550	[8 Kincort Street (Castlefield and Kincort), T...	NaN
1	4e8218e1775b313c2afa5d8d	Agio Italian Ristorante	43.676156	-79.450574	[1351 St Clair West (Lansdowne), Toronto ON, C...	NaN
2	4e31afdd091a973ec9c5a2b5	Punto Gelato, Simply Italian	43.669955	-79.392603	[146 Cumberland St (btwn Avenue Rd & Bay St), ...	Yorkville
3	52f6816f11d24a43115dc834	Scaddabush Italian Kitchen & Bar	43.658920	-79.382891	[382 Yonge Street, Unit #7 (Gerrard), Toronto ...	NaN
4	546e313c498ea838219b4ce7	The Italian Sandwich	43.680377	-79.427523	[242 Rushton Road, Toronto ON, Canada]	NaN
5	521ce6b811d235da80b670d2	Italian Canadian Savings & Credit Union	43.649369	-79.421831	[1168 Dundas Street West, Toronto ON M6j 1x4, ...	NaN
6	4fe3bf67e4b0ef61f4cbe022	Italian Walk Of Fame	43.655182	-79.415781	[Toronto ON, Canada]	NaN
7	4cfc22012d80a14304854fd8	Catania Italian Cuisine	43.680797	-79.430570	[Toronto ON, Canada]	NaN
8	4fdc81d7e4b090d3f5a66bf7	Italian Chamber Of Commerce	43.656158	-79.409106	[Canada]	NaN
9	52430d7611d2b3a076a88132	Italian canadian savings and credit union	43.708357	-79.453877	[Dufferin, Toronto ON, Canada]	NaN
10	4db9bb6db5928d7fda728fc4	The Italian Cultural Institute	43.668432	-79.402169	[496 Huron St, Toronto ON, Canada]	NaN
11	4bfc0289c3ba9521c00f9653	Italian Consulate Toronto	43.654027	-79.394104	[136 Beverley St (Dundas Street), Toronto ON, ...	NaN
12	58de9bb6c5f8a7558d1549f4	Alimentari Italian Grocery	43.648804	-79.449880	[325 Roncesvalles Avenue, Toronto ON M6R 2M6, ...	NaN
13	53bed05e498e908d95ce1f4d	italian vegetarian magic	43.673801	-79.386610	[7 Yorkville Ave., Toronto ON, Canada]	NaN
14	5c4e5e93a87921002c793935	Giovanni's Italian Kitchen & Pizza Bar	43.655117	-79.419775	[760A College St, Toronto ON M6G 1C4, Canada]	NaN
15	59751575dee77066f39619d5	Rita's Italian Ice Canada	43.657070	-79.403320	[347 College St, Toronto ON M5T 2V8, Canada]	NaN
16	4ad4c05f964a52014f720e3	Papa Ceo Fine Italian Foods & Pizza	43.663300	-79.402317	[654 Spadina Avenue, Toronto ON M5S 2H7, Canada]	NaN
17	4ba6adeef964a520546839e3	Marinella Simply Italian	43.655029	-79.415784	[640 College St. (College and Grace), Toronto ...	NaN
18	53daae5b498e9c9597c19b23	john's italian cafe	43.656127	-79.393301	[27 Baldwin Street, Toronto ON, Canada]	NaN
19	4fdf5390e4b0d263e8a3bcd6	Gourment italian Sandwichs	43.644645	-79.399556	[Canada]	NaN
20	51830da6498eafb14b40f22c	San Genaro Italian Eatery	43.720342	-79.455828	[3500 Dufferin St, Toronto ON, Canada]	NaN
21	4b5f24cf964a520e0a829e3	Bacaro Italian Eatery	43.670824	-79.384675	[2 Bloor St East (Yonge + Bloor), Toronto ON, ...	NaN
22	4c4f0fa6fb742d7fda08542f	Il vagabondo	43.701480	-79.452443	[2700 Dufferin Street, Toronto ON m6b 4j3, Can...	NaN
23	4b801c8cf964a5203f5330e3	Pizza Flora	43.644203	-79.448160	[167 Roncesvalles Ave. (btwn Garden & Fern), T...	NaN
24	4ae468ecf964a520689a21e3	Focaccia	43.669932	-79.386110	[17 Hayden St. (Yonge & Bloor), Toronto ON, Ca...	NaN
25	52139420498e96e2cab06a76	Istituto italiano di cultura	43.667029	-79.400519	[Canada]	NaN
26	4c1166f7d41e76b0db57310d	Istituto Italiano di Cultura	43.668722	-79.402256	[496 Huron Street, Toronto ON, Canada]	NaN