

Blogpost

I completed a data analysis to help determine the most viable locations in Toronto for an Italian restaurant to open. To do this, I used data on venue frequency in the different neighborhoods, and did a K means clustering to identify similar neighborhoods. I then identified neighborhoods with no Italian restaurants that were similar to neighborhoods that had Italian restaurants (in the same cluster). I performed clustering within separate clusters to determine even more similar neighborhoods.

I was able to narrow down the potential pool of neighborhoods to 13 out of the original 38. These neighborhoods have no Italian restaurants in them, but they are highly similar to neighborhoods that have successful Italian restaurants. We see from a brief examination of their top 10 most frequent venues that these neighborhoods support a wide range of restaurants and bars already and clearly have consumer demand conducive with a bustling nightlife.

Obviously, this does not take into account all factors that are important in determining where to locate a new restaurant. Another factor to consider, as mentioned earlier, is the rent cost in each neighborhood. Any potential restaurant owner needs to balance rent costs with consumer demand to maintain a profitable business. This would be an interesting consideration for further research.

Cluster Labels	Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue	Italian Restaurant
1	Regent Park, Harbourfront	Coffee Shop	Bakery	Pub	Park	Breakfast Spot	Café	Theater	Yoga Studio	Shoe Store	Brewery	0.0
1	The Annex, North Midtown, Yorkville	Café	Sandwich Place	Coffee Shop	History Museum	Park	Pharmacy	Pizza Place	Pub	Middle Eastern Restaurant	Burger Joint	0.0
1	Davisville North	Park	Hotel	Dog Run	Breakfast Spot	Gym / Fitness Center	Sandwich Place	Department Store	Dance Studio	Food & Drink Shop	Doner Restaurant	0.0
1	Commerce Court, Victoria Hotel	Coffee Shop	Café	Hotel	Restaurant	Gym	Seafood Restaurant	Deli / Bodega	Beer Bar	Japanese Restaurant	Gastropub	0.0
1	Church and Wellesley	Coffee Shop	Gay Bar	Restaurant	Yoga Studio	Men's Store	Japanese Restaurant	Burger Joint	Hobby Shop	Hotel	Distribution Center	0.0
1	Summerhill West, Rathnelly, South Hill, Forest...	Coffee Shop	Supermarket	Fried Chicken Joint	Sports Bar	Sushi Restaurant	Bank	Restaurant	Pizza Place	Bagel Shop	Liquor Store	0.0
1	Business reply mail Processing Centre, South C...	Brewery	Pizza Place	Recording Studio	Restaurant	Light Rail Station	Auto Workshop	Butcher	Burrito Place	Farmers Market	Gym / Fitness Center	0.0
4	Dufferin, Dovercourt Village	Pharmacy	Bakery	Bank	Café	Park	Brewery	Music Venue	Supermarket	Bar	Grocery Store	0.0
4	CN Tower, King and Spadina, Railway Lands, Har...	Airport Lounge	Airport Service	Airport	Coffee Shop	Rental Car Location	Sculpture Garden	Harbor / Marina	Plane	Boat or Ferry	Boutique	0.0
4	Kensington Market, Chinatown, Grange Park	Mexican Restaurant	Café	Vegetarian / Vegan Restaurant	Coffee Shop	Bakery	Burger Joint	Dumpling Restaurant	Dessert Shop	Vietnamese Restaurant	Bar	0.0
4	The Beaches	Trail	Pub	Health Food Store	Yoga Studio	Cupcake Shop	Donut Shop	Doner Restaurant	Dog Run	Distribution Center	Discount Store	0.0
4	Richmond, Adelaide, King	Coffee Shop	Café	Concert Hall	American Restaurant	Steakhouse	Restaurant	Noodle House	Department Store	Smoke Shop	Seafood Restaurant	0.0
4	First Canadian Place, Underground city	Café	Coffee Shop	Restaurant	Seafood Restaurant	Japanese Restaurant	Hotel	Deli / Bodega	Bar	Gym	American Restaurant	0.0

