Candidate Neighborhoods for Theoretical New Pizza Restaurant

Capstone presentation for IBM Data Science professional certificate on Coursera

Objective

Identify neighborhoods in Toronto that are good candidates for a new pizza restaurant given the criteria:

- Low potential competition with existing pizza restaurants
- High online exposure

Approach

- 1. Use Foursquare API to identify existing venues in Toronto neighborhoods
- 2. Filter those results to neighborhoods with low frequency of existing pizza restaurants
- 3. Use Foursquare API to tally up likes for each neighborhood
- 4. Combine the two datasets to identify candidate neighborhoods based on low pizza restaurant frequency and high online exposure (e.g. likes)

Results

Top five neighborhoods with no existing pizza restaurants

	Neighborhood	Pizza restaurant frequency	Likes count
	St James Town	0	13,782
	Brockton, Exhibition Place, Parkdale Village	0	4,881
	Cabbagetown, St. James Town	0	1,789
Kingsway Park South West, Mimico NW, The Queensway West, Royal York South West, South of Bloor		0	1,609
CN Tower, Bathurst Quay, Island airport, Harbourfront West, King and Spadina, Railway Lands, South Niagara		1,131	

Additional results

Two additional candidate neighborhoods with high (non-zero) pizza restaurant frequencies and high like counts

Neighborhood	Pizza restaurant frequency	Likes count
Adelaide, King, Richmond	0.020000	17,092
Berczy Park	0.010000	13,244

Recommendation

Recommended neighborhoods

- St James Town
- Adelaide, King, Richmond
- Berczy Park