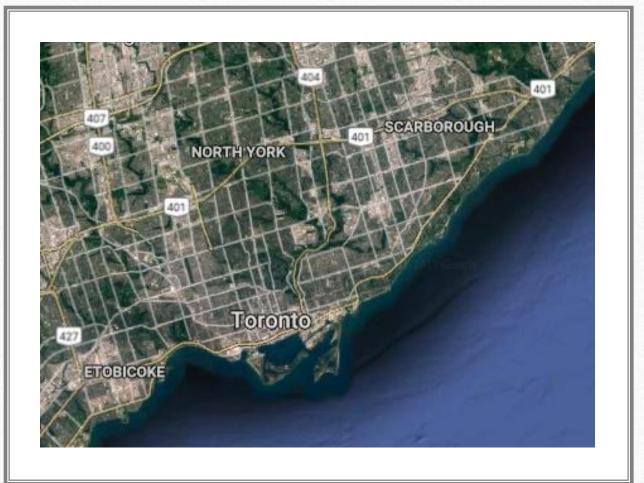
## Toronto's Coffee Shop Market

Where's the best place to open a new coffee shop?



# Say I want to open a coffee shop!

- Toronto has lots of coffee shops.
- Can we use data science to figure out which neighborhood has the best potential for a new coffee shop?

#### Data on Coffee Shops

- Using FourSquare, let's sample every neighborhood in Toronto to see what kind of venues each holds.
- For each neighborhood, we determine the frequency of each venue.
- We then normalize this data. Thus, for each neighborhood, we have the probability that a particular venue is a coffee shop.
- We also have the data for all the other venues.

### Which neighborhood?

- Can we just choose the neighborhood with the lowest frequency for coffee shops?
- Maybe we shouldn't. We don't know what kind of factors go into whether a coffee shop in a location is successful.
- By looking at the other venues in the neighborhood, we might have a better idea and get a better prediction.

#### Regression and Prediction

- Let's use the frequency of all of the other venues as features.
- Let's build a regression with these features.
- We can predict what the frequency of coffee shops in each neighborhood should be.
- The best neighborhoods for building a coffee shop are those in which we predict a much higher frequency than actually occurs.



#### Downsview Northwest

- We predict that Downsview Northwest, also known as Jane and Finch, is the most underserved neighborhood for coffee shops.
- Of course, before opening a coffee shop, we'd go and get familiarized with the neighborhood first. Other factors may affect the final decision.