

# Capstone Project - The Battle of Neighborhoods

## Introduction

I currently live in NYC and love to work out. I enjoy many types of workouts; cardio, weights, cycling, yoga, etc. Variety is very important to me to ensure I mix up my muscle group workouts and to avoid boredom. I was just informed that my job will be relocating to Toronto and I have agreed to make the move to the city. For me, proximity to work is not as important to the proximity of a variety sources of workouts. The problem that I am trying to solve is what neighborhood in Toronto offer the most variety of workouts.

## Intended Audience

Gym enthusiasts who plan on moving to the Toronto area are the key audience for this project. We want to showcase all they fitness options a neighborhood has to offer.

## Data

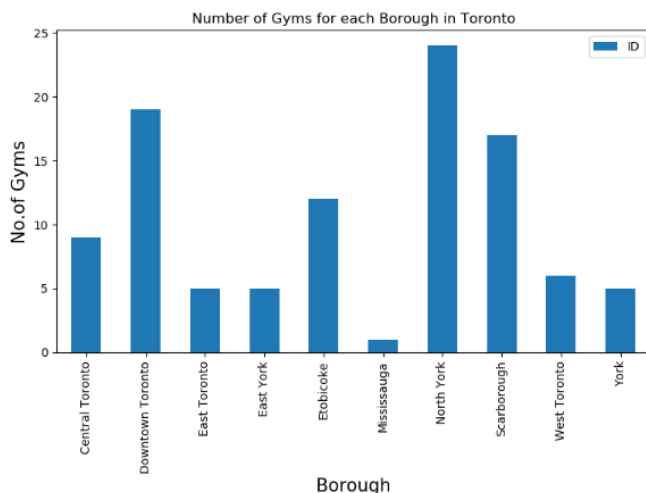
The following will be used as input data for the project.

- Wikipedia page containing the postal codes of Toronto, Canada:  
[https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M). This will be transformed into a dataframe where we will filter out Toronto neighborhoods.
  - **Data Cleaning**
    - Only process the cells that have an assigned borough.
    - More than one neighborhood can exist in one postal code area. These two rows will be combined into one row with the neighborhoods separated with a comma.
  - If a cell has a borough but a Not assigned neighborhood, then the neighborhood will be the same as the borough.
- Geospatial Data to get the geographical coordinates of each postal code:  
[http://cocl.us/Geospatial\\_data](http://cocl.us/Geospatial_data)
- Fousquare API to get a list of all gyms in an area.

## Methodology

- Data will be collected from Wikipedia page containing the postal codes of Toronto, Canada. It will be scrubbed and presented as detailed above.
- Once the geospatial data is collected regarding the longitude and latitude points of Toronto, we will use the FourSquare API to filter gyms according to their discipline.
- This data will then be visualized using a graph.

## Results



## **Discussion**

Please note that the when selecting a sample and radius too large in Foursquare, the code would not execute due to size limitations.

## **Conclusion**

The information contained in this report displays that the best neighborhoods in Toronto for gym enthusiastic is North York followed by Downtown Toronto.