

# Coursera IBM Data Science Capstone Project

## The Battle of Neighborhoods

### Part I

1. A description of the problem and a discussion of the background.

Toronto is the most populous city in Canada and the fourth most populous city in North America (<https://en.wikipedia.org/wiki/Toronto>). It has a unique architecture. The small and large neighborhoods comprising the city have an exceptional character distinct from the tall buildings in the commercial part of the town. It is rich with museums, historic buildings, and music venues. The city also has a diverse array of public spaces, from city squares to public parks. During a pandemic, such as COVID19, many museums, theaters, and other cultural hot spots are closed. The public art places become extremely important for visitors and locals because they are some of the few outdoor spots in the city where people can visit and enjoy keeping a safe distance from other visitors. For this project, I'm planning to compare the Public Art venues in Downtown Toronto. I will examine the neighborhoods by number and predominant type of Public Art so people can choose to take a walk in a region where their favorite kind of Public Art is more common.

2. A description of the data and how it will be used to solve the problem.

To construct the dataset that consists of Postal Codes, Boroughs, and Neighborhoods of Toronto, I will scrape the following Wikipedia page, [https://en.wikipedia.org/wiki/List\\_of\\_postal\\_codes\\_of\\_Canada:\\_M](https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M), and transform the data into a pandas data frame. To get location data, I will use a CSV file with the geographical coordinates of each postal code: [http://cocl.us/Geospatial\\_data](http://cocl.us/Geospatial_data). And finally, the location and type of each

Public Art venue will be collected from the Foursquare API. After each dataset is received, the data will be cleaned and filtered to suit the analysis's purposes. The data will be visualized with Matplotlib and Folium.