

This is my capstone project “IBM Data Science Specialization”

Project assignment: come up with an idea to use Foursquare location data to explore or compare neighborhoods or cities of your choice, or come up with a problem that you can use Foursquare location data to solve. Provide sufficient justification for why you think what you want to do or solve is important and why a client or group of people is interested in your project.

I chose the Winnipeg (the capital and largest city of the province of Manitoba in Canada), because this city is most interesting to me as a city of possible immigration in the future and I am curious to study the features of its areas.

In my project, I analyzed which parts of the city have more children and institutions for children. What is the demographic situation in different areas? Determine area that is the best to open your school of additional education (for example, to help children learn mathematics, robotics and programming). This information can be useful for beginning entrepreneurs who want to work in the field of children education. This project can be useful for parents who need to have information of areas of Winnipeg about children educational centers.

To solve this problem, I used the following datasets:

1. City of Winnipeg Open Data Portal: <https://data.winnipeg.ca/> in particular data on the boundaries of neighborhoods characterization areas (aka NCA) as polygons: <https://data.winnipeg.ca/City-Planning/Neighbourhood/fen6-iygi> and I used City of Winnipeg Currently Active Official Property Addresses and Associated Coordinates to get the center coordinates of the each Borough: <https://data.winnipeg.ca/City-Planning/Addresses/cam2-ii3u>.
2. I used Foursquare API to get the most common venues of given Borough of Winnipeg: <https://developer.foursquare.com/>.
3. General information about the city of Winnipeg: <https://en.wikipedia.org/wiki/Winnipeg>.
4. City of Winnipeg maps, aerial photos and data: <https://www.winnipeg.ca/interhom/maps/>.
5. Census data for 1996, 2001, 2006 and 2011, 2016 by district: <https://www.winnipeg.ca/census/sitemap/sitemap.asp> .