Proposal for Clothing brand establisment location

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Part I of the Capstone Project

alec parise

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# **Introduction/ Business Problem**

In recent decades, the Waterloo region has experienced linear growth patterns in population since 2011. According to the 2016 Census of Canada, Waterloo Region is home to 535,154 people, which represents 4.0% of the total population of Ontario (Smale, 2017). In a country which has annual growth of 5% each year, the growth rate of Waterloo region ranks it amounts the highest in Canada. Furthermore, corporations like Amazon and Google are paving the way for opportunity in the region by creating jobs in the tech and retail industry. As appealing as this would seem for new business owners in the region, would it be economically viable, given the increase property value, to open a business within the region? If so where?

My client is wanting to expand their apparel company into the region, and tasked me with determining the location, more specifically the neighborhood, that provides the most potential for their brand. Other established brands like H&M, Old Navy, and Lululemon will have an impact on revenue, therefore consideration of their location must be made. This report is separated in IV sections where, the Introduction/Problem is discussed in Section I, Description of the Data in Section II, the Methodology in Section III, the Results in Section IV, the Discussion of the results in Section V. Finally, in Section VI the Conclusion.

# **Description of the Data**

The data will consist of three types of data which will be required for analysis for this contract.

1. Names of the Neighborhoods within the region
2. Geographic Coordinates of the Neighborhoods
3. The venues and foot traffic for the Waterloo Region

Each data type will be merged with the ladder creating one dataframe containing the Neighborhoods, Geographic coordinates, and the venues foot traffic.

## Names of the Neighborhoods

This dataset will contain the names of the different neighborhoods in the Waterloo Region. The data was obtained from the Waterloo Region open-source website (link: <https://rowopendata-rmw.opendata.arcgis.com/datasets/d1656d3c7abb4c7da20fab83c77caec7_0/data?page=32> ). The records provide outdated population counts, so for the purpose of this study they were omitted from this dataset but will be included later on in the Foursquare dataset.

## Geographic Coordinates

The geographic coordinates of each location were added to the dataset using the *Nominatim* module from the Python Geopy Library. This allowed to assigned Latitude and Longitude coordinates to each Neighborhood in the Waterloo Region.

## Venues and foot traffic

The Foursquare API was used to retrieve information about the most popular spots in berlin. The popular spots returned depends on the highest foot traffic at the time when the call is made. We may get different popular venues at different times of the day.