IDEAL LOCATION FINDER

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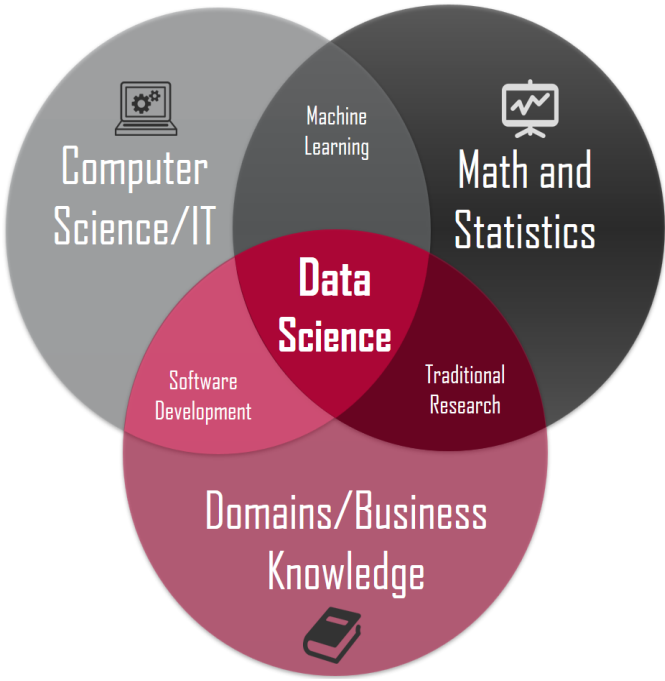
INTRODUCTION

The project helps small businesses that want to open new shops. It helps them to find the best location in the city with least number of similar businesses and possibly high number of customers using the Foursquare API. As an example, I tried to find out the best place to open a coffee shop in Toronto, CA.

DATA

The world is a big data problem.
~ Andrew McAfee

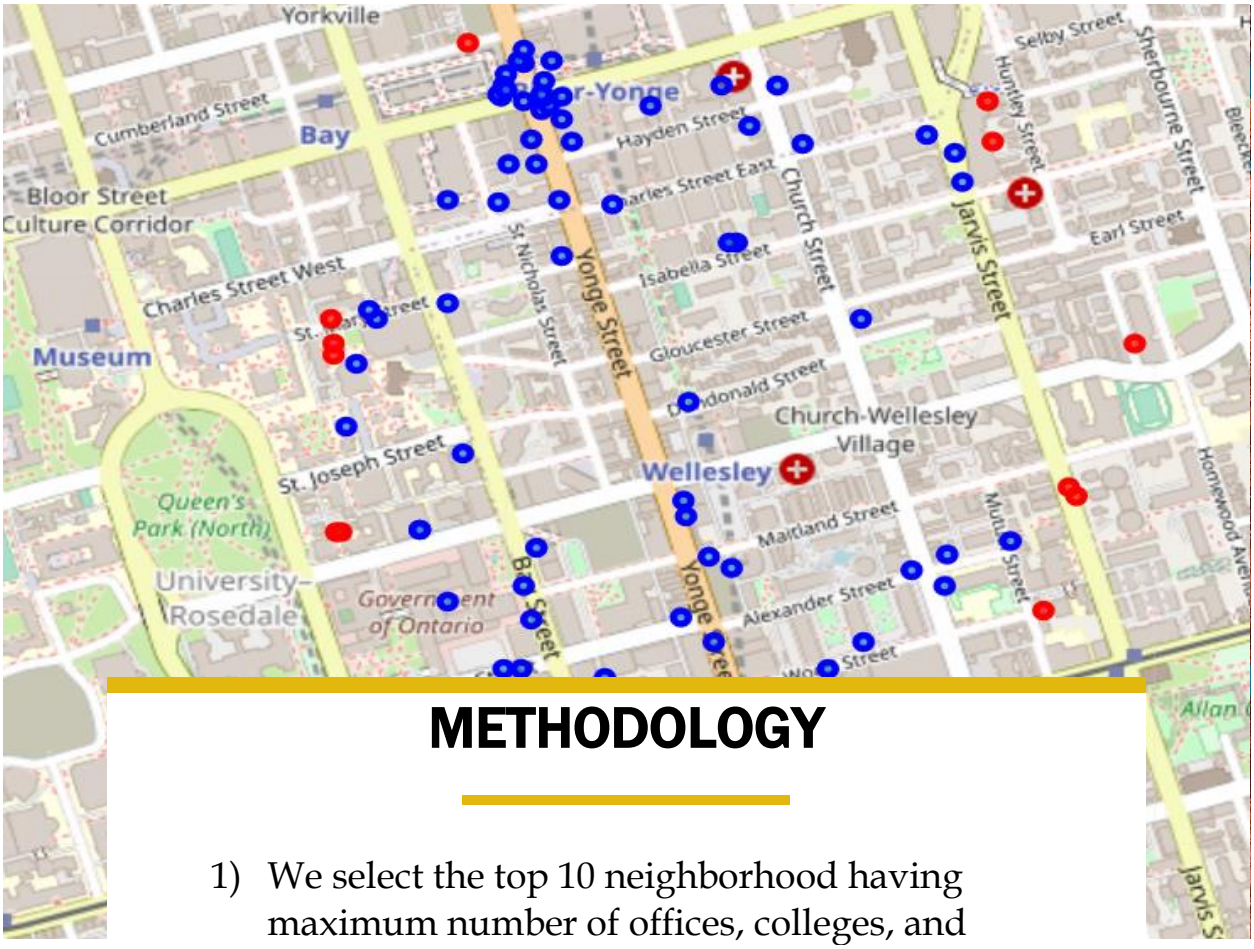


City Data

Source: Wikipedia
Method of extraction: Web Wrangling
Consists: Neighborhoods, Posta

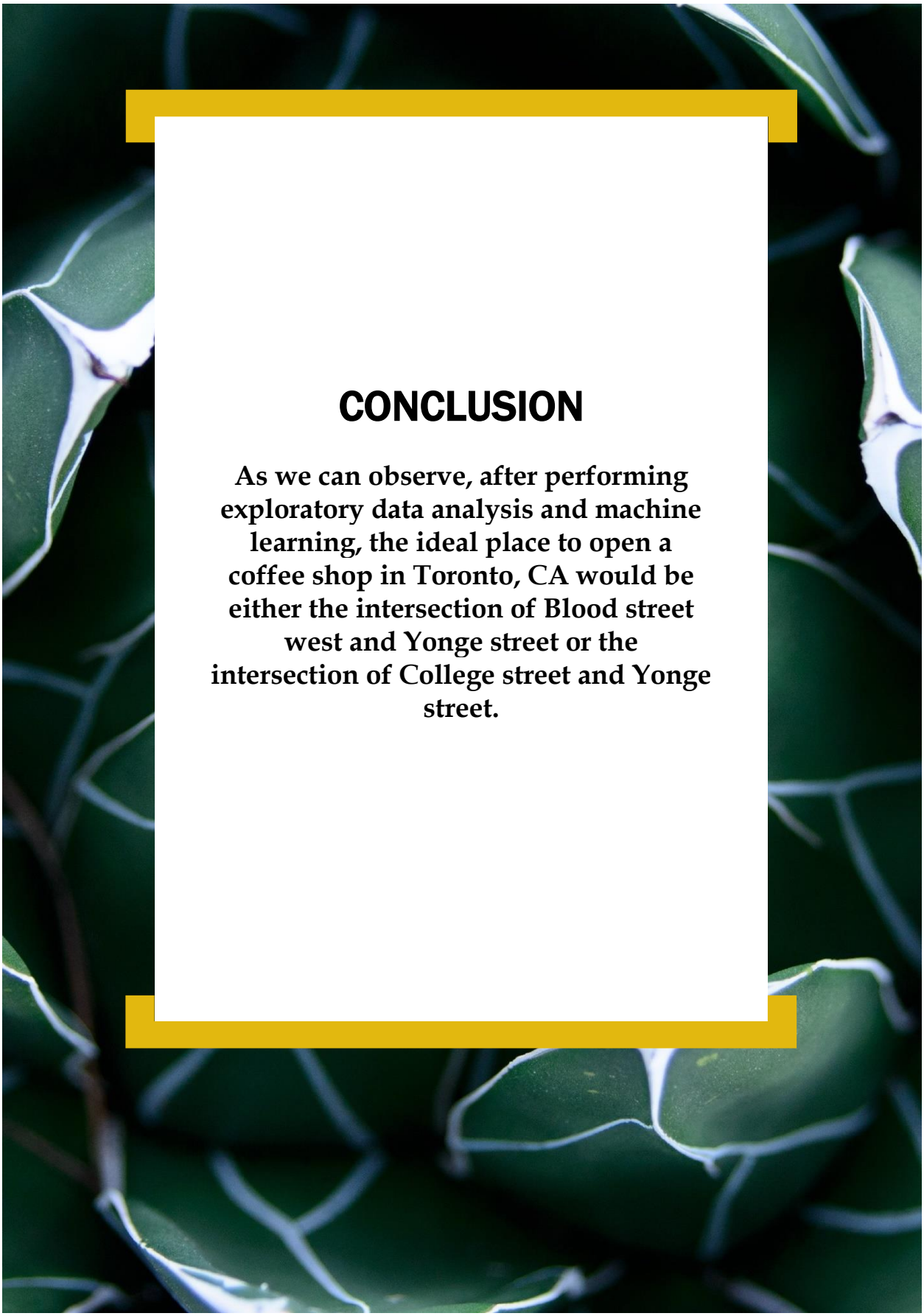
Location Data

Source: Foursquare
Method of extraction: API
Consists: Nearby venues' information



METHODOLOGY

1) We select the top 10 neighborhood having maximum number of offices, colleges, and schools.
2) Make a union list of all these neighborhoods.
3) For all these neighborhoods, we find which one of these has the minimum number of coffee shops.
4) Once we find the neighborhood where we want to set up our shop, we search for trending venues in the neighborhood and set up a shop there.
5) We then combine all the offices, colleges and school's data points to cluster them into groups to find outliers
6) Visualize the colleges and schools in the area and select the area where the data points are dense.
7) 7) If not happy with the result, select the second neighborhood with minimum number of coffee shops.



CONCLUSION

As we can observe, after performing exploratory data analysis and machine learning, the ideal place to open a coffee shop in Toronto, CA would be either the intersection of Blood street west and Yonge street or the intersection of College street and Yonge street.