



# GTA REAL ESTATE INVESTMENT OPPORTUNITIES

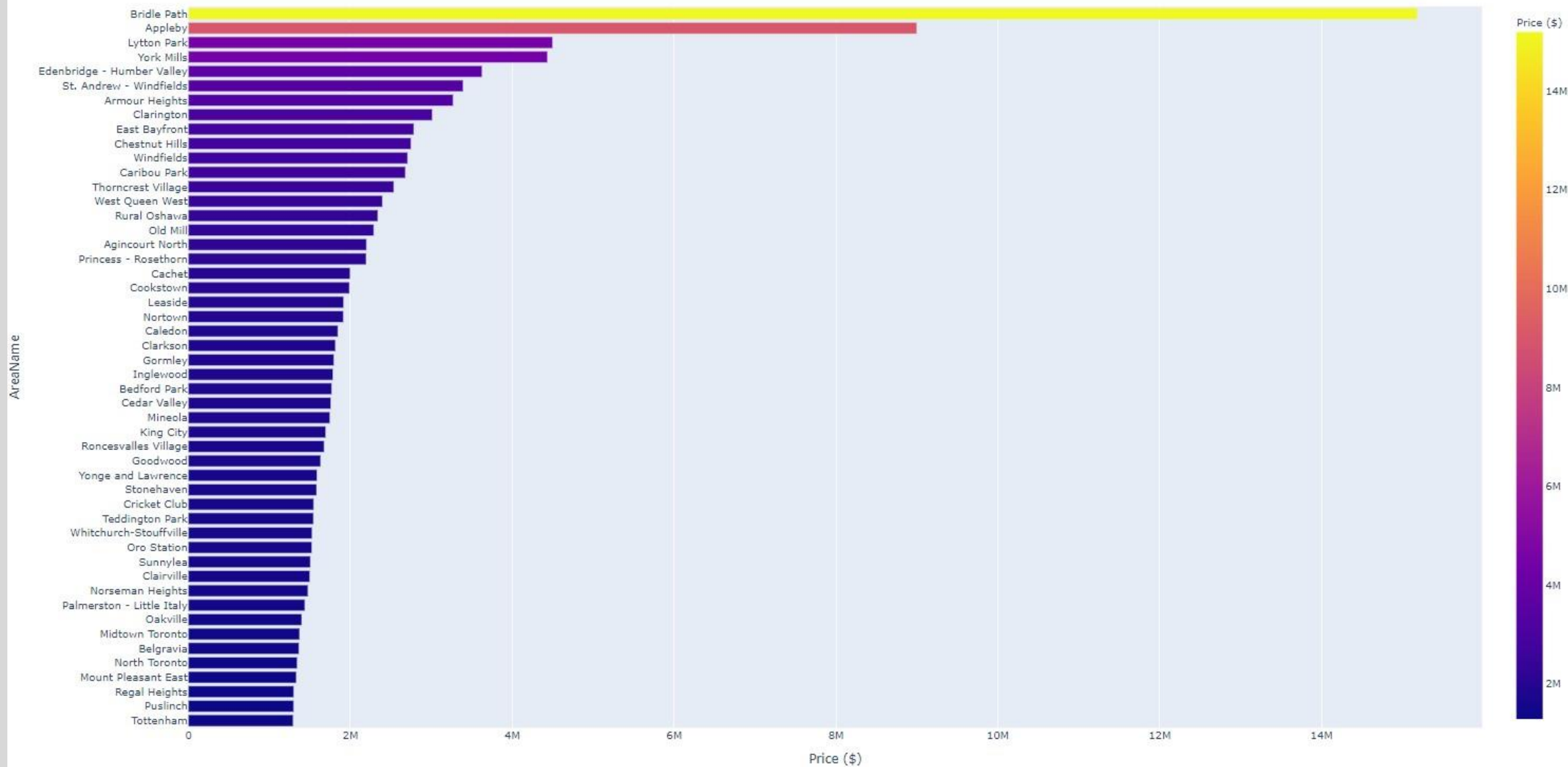
Jonathan Densil

# Why the GTA?

- The GTA is the most populous metropolitan area
- Houses around 20% of the population of Canada
- Second-largest financial sector in North America.
- Toronto is the 4th largest city in North America and Canada's business and financial capital.
- Nearly 100,000 new immigrants annually
- 130 million people live within a 500-mile radius

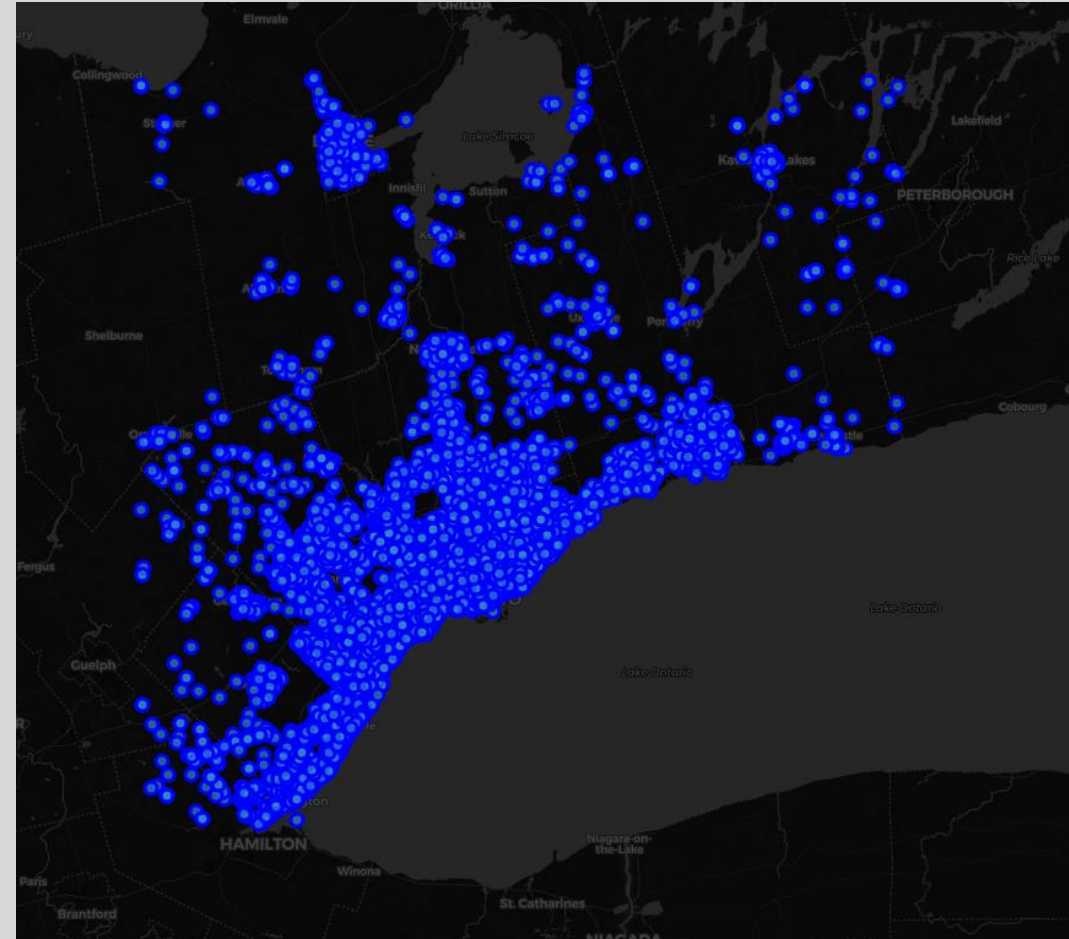


Average House Price per Area

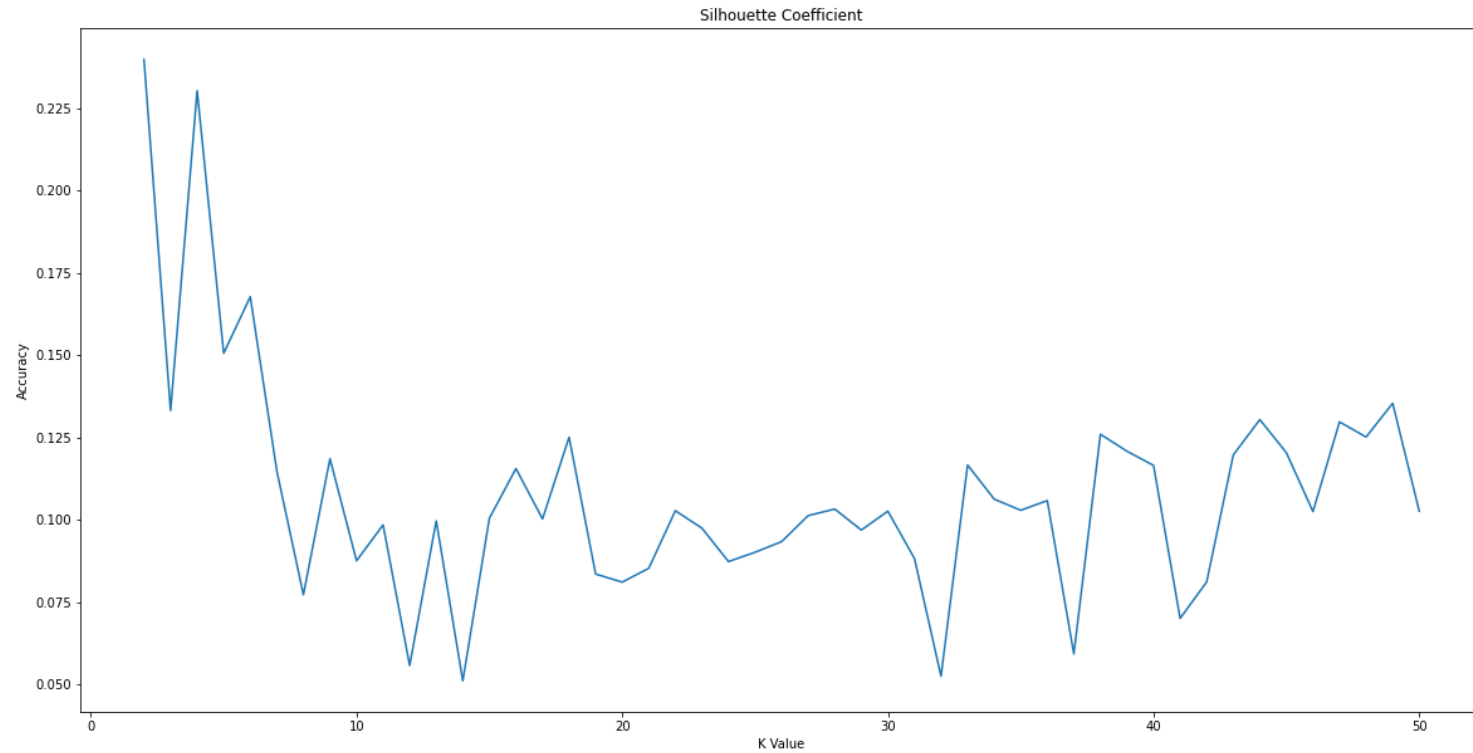


# Location, location, location

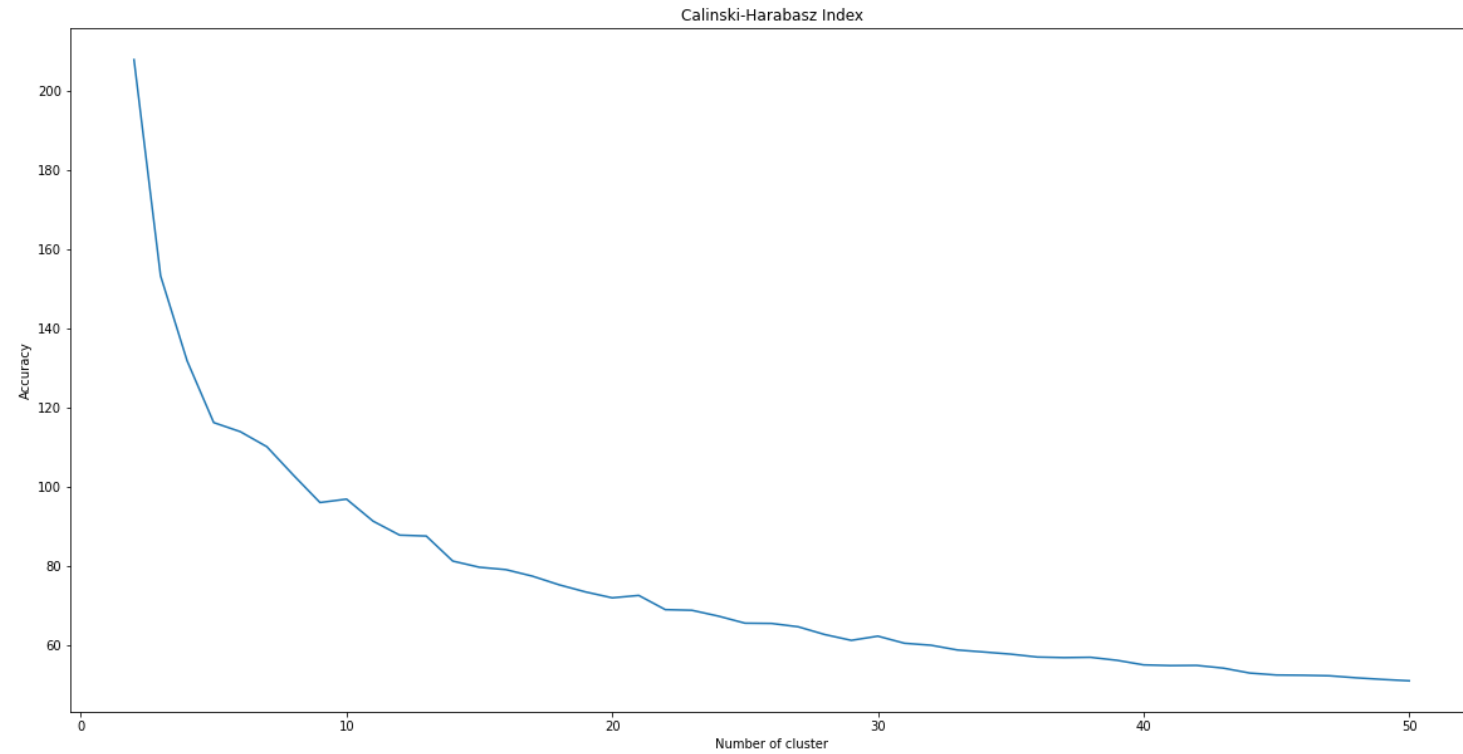
- Using machine learning algorithms, we can cluster the GTA into various segments to help predict the house of home given a certain location
- Using k-means unsupervised machine learning, every point will be assigned a cluster, from which we can infer certain characteristics
- Foursquare data will help guide the algorithm based on the most popular venues around each location



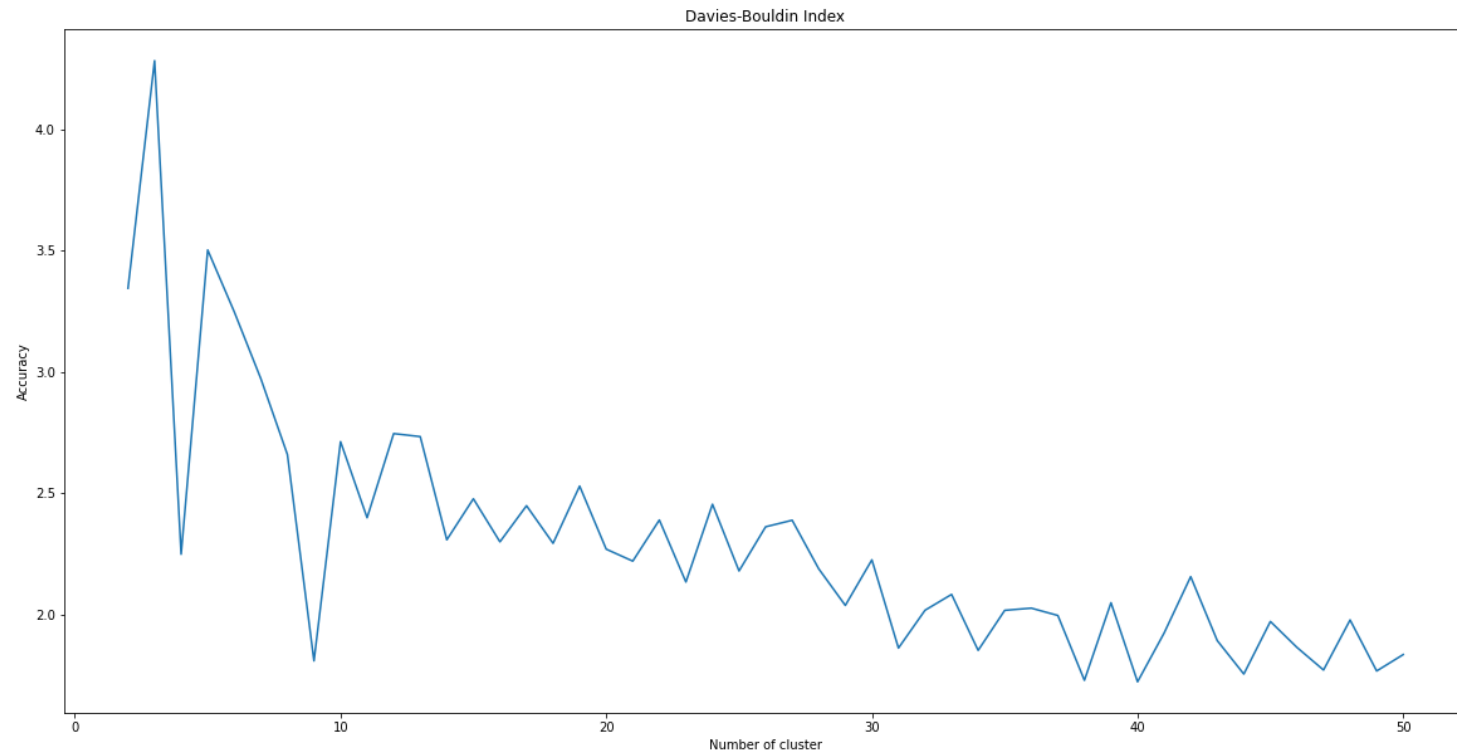
# Silhouette Coefficient



# Calinski-Harabasz Index



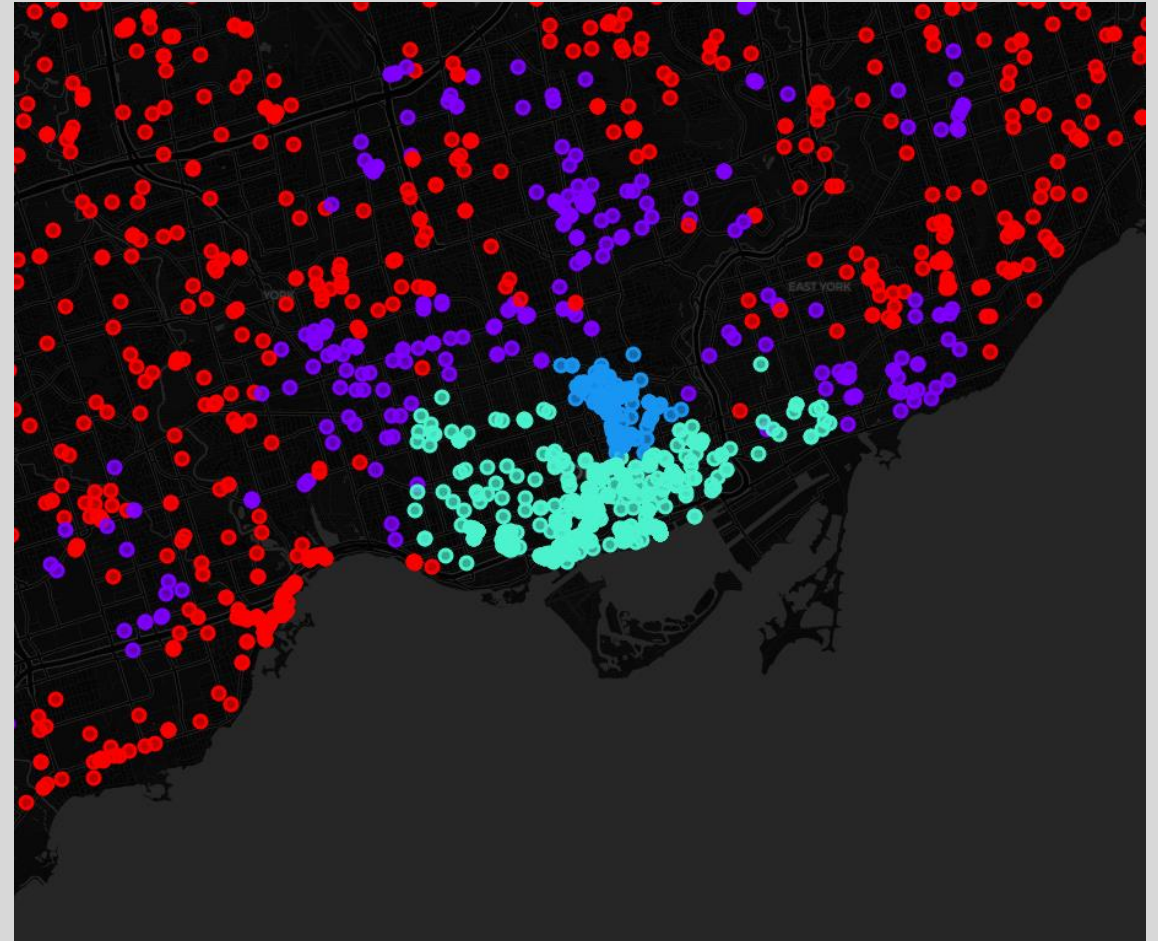
# Davies-Bouldin Index





# The Clustered GTA

- Cluster 0 (red) can be categorised as upscale suburban housing due to having the highest average price and the scale at which it is spread across the suburbs of the GTA – avg. price = \$927,429
- Cluster 1 (purple) can be categorised as more affordable suburban housing since it has a lower average price in the suburbs and is not restricted to just downtown – avg. price = \$675,705
- Cluster 2 (blue) can be categorised as upscale downtown housing since it is concentrated primarily around the Yorkville and Rosedale neighbourhoods, two particularly affluent neighbourhoods in Toronto and the GTA – avg. price = \$860,471
- Cluster 3 (turquoise) can be categorised as more affordable downtown housing due to its high concentration in the city of Toronto and having the lower average price – avg. price = \$621,445





# Where would you like to INVEST?



IBM Data Science Professional Certificate  
Coursera Inc.

Jonathan Densil

[jonathan.densil@gmail.com](mailto:jonathan.densil@gmail.com)

(905) 399-6590

[linkedin.com/in/jonathandensil/](https://www.linkedin.com/in/jonathandensil/)

[github.com/JonathanDensil](https://github.com/JonathanDensil)