

# Capstone Project - The Battle of Neighborhoods

(Manhattan vs Toronto)

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# **OUTLINE**



- Introduction
- Data
- Metholology
- Results
- Discussion
- Conclusion
- Appendix

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#### INTRODUCTION



- Comparison and evaluation of the rental options in Manhattan NY
  - Desired location is in the Manhattan area, New York.
  - Should be near to the metro stations.
  - Price of rent does not exceed \$7,000 per month.
  - Desirable to have venues such as coffee shops, restaurants Asian, Thai, wine stores, gym, and food shops.
- Business Requirement
  - Someone is looking to open a restaurant in Manhattan area
  - To choose the best possible rental property based on the collected data



### **Data Selection**

- List of Boroughs and Neighbourhoods of Manhattan
- List of property for rent with geo location and price
- Venues & Attractions for each Manhattan neighborhood
- Lost Subway metro station data





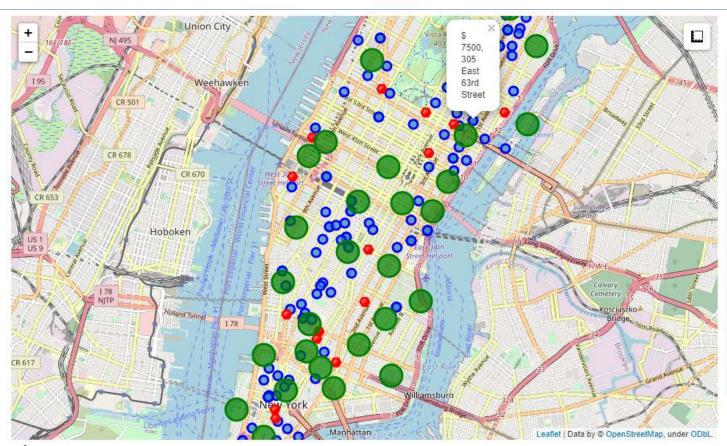
# **METHODOLOGY**



- Analysis and the strategy
  - Filter the collected data
  - Map the data
  - Data Visualization Approach
- Data Processing and Combine All-in-One
- Decision Making
  - Property Selection



# **RESULTS**



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# **Decision Making - Property Selection**

- Cluster 2 Sutton Place area is closed to Subway station, rental price is also around the budget
- 305 East 63rd Street = \$7500
- 150 East 57th Street = \$5950

- 305 East 63rd Street can be the best choice as close to Cluster 2 ("Sutton Place")
- Will bring more traffic to the shop



# NoteBook, Report and Presentation

- Notebook: <u>https://nbviewer.jupyter.org/gist/philipshield99/67e5967095dec4007</u> <u>459adbb9b924321</u>
- Report: https://github.com/philipshield99/Cousera\_Capstone5/blob/master/ Capstone\_Project\_The%20Battle%20of%20Neighborhoods\_Week2.p df
- Presentation:

## **DISCUSSION**



- Capstone project presented me a great opportunity to practice and apply the Data Science tools
- Good starting point to become a professional Data Scientist



### **CONCLUSION**



- Feel rewarded with the efforts
- Appreciate instructors, customer support and every single one
- Foursquare API, mapping with Folium are very powerful & resourceful techniques



#### **APPENDIX**

#### Tools used for this project

- **IBM Waston Studio**
- Jupyter Notebook
- Python Programming language
- Foursquare API
- Github
- **Data Sources**
- https://en.wikipedia.org/wiki/List of New York City Subway stations in Manhattan
- https://www.google.com/maps/search/manhattan+subway+metro+stations/@40.7837297,-74.1033043,11z/data=!3m1!4b1
- https://www.nestpick.com/search?city=newyork&page=1&order=relevance&district=manhattan&gclid=CjwKCAiAjNjgBRAgEiwAGLlf2hkP3AcPxjZYkURqQEswQK2jKQEpv MvKcrlhRWRzNkc r-fGi0lxoCA7cQAvD BwE&type=apartment&display=list



