

Battle of the Neighborhood

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IBM Data Science

Introduction

- Question: which is the best location where to open an Italian Restaurant in Toronto?
- We use Data Science to help us answer this question

Data type

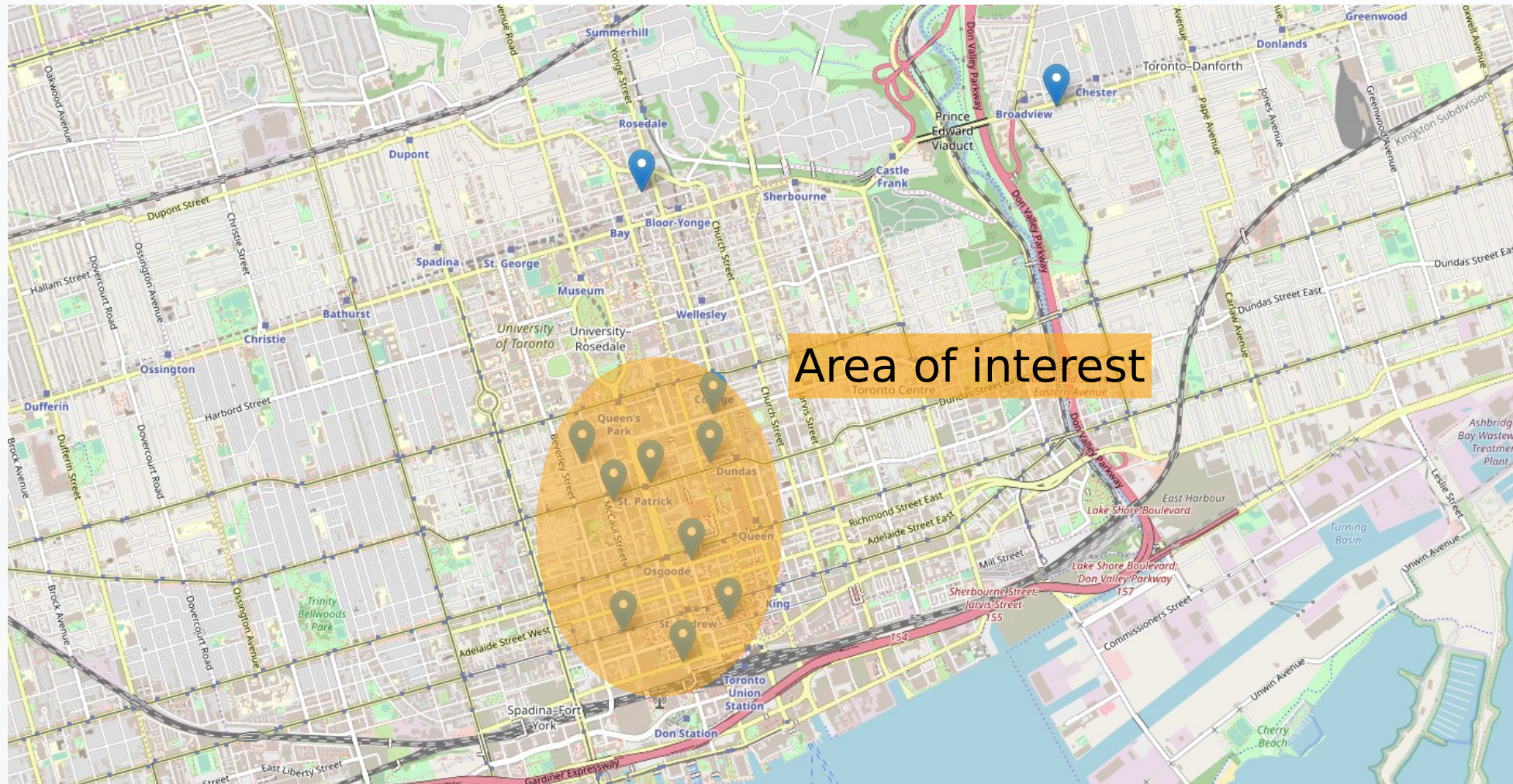
- Understand where other Italian Restaurants are located in Toronto
- Investigate if there is a correlation between some activities (bar, hotels, ...) and position of Italian Restaurants

Methodology

- Collect data of Toronto locations
- Collect geospatial and Foursquare data
- Use these data to understand which are most frequent venues near Italian Restaurants
- Evaluate best location basing on simple graphic map

Location of Italian restaurants

- 9 Italian Restaurants are located between Queen's Park and Toronto Union Station

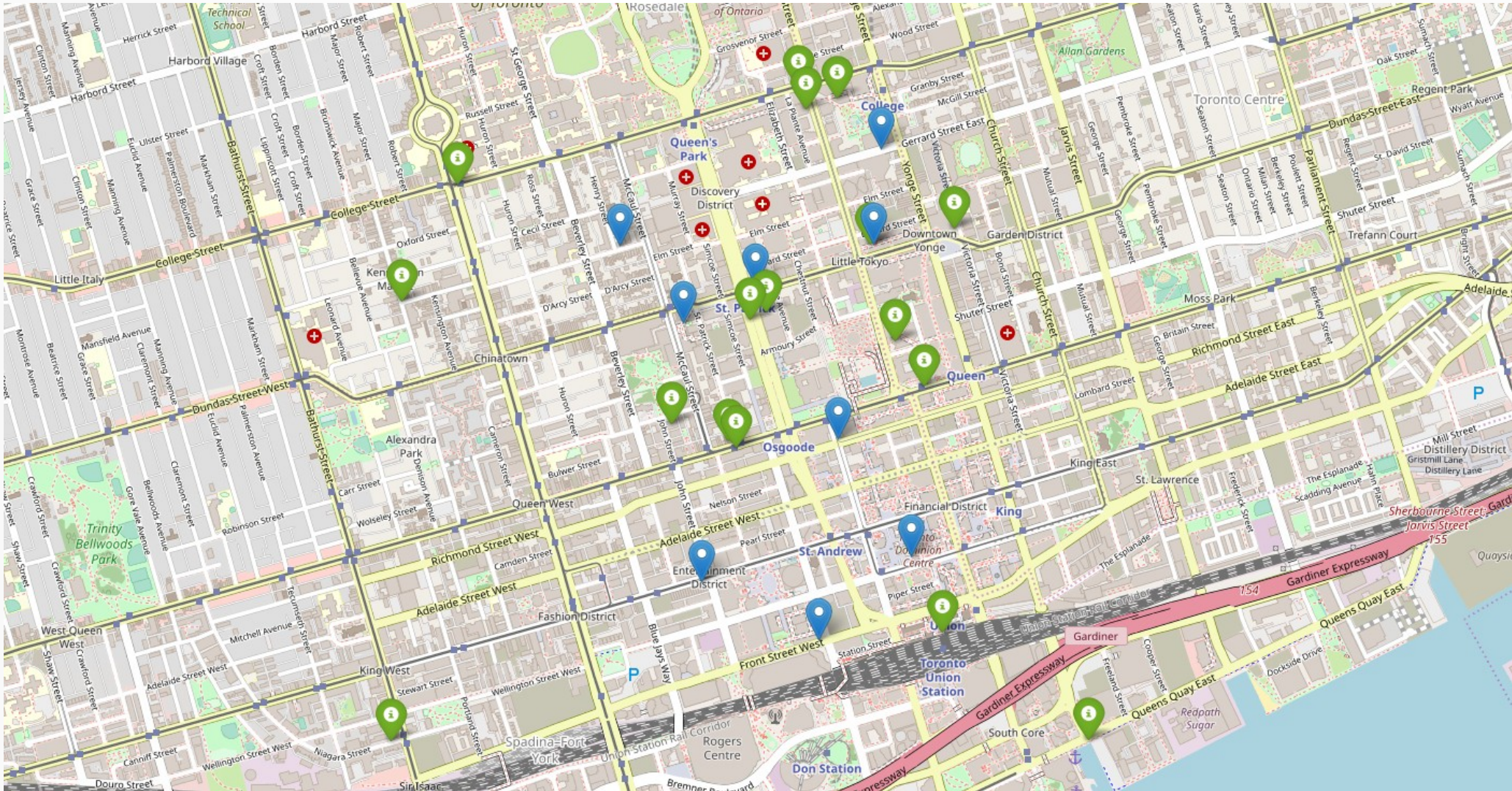


Top venues near Italian Restaurants

- Top 3 not serving food are
 - Coffee Shop
 - Bar
 - Hotel

	Restaurant	Restaurant longitude	Restaurant latitude	Venue longitude	Venue latitude	Distance
Venue type						
Coffee Shop	141	141	141	141	141	141
American Restaurant	66	66	66	66	66	66
Bakery	61	61	61	61	61	61
Café	56	56	56	56	56	56
Restaurant	44	44	44	44	44	44
Burger Joint	43	43	43	43	43	43
Gastropub	41	41	41	41	41	41
Beer Bar	40	40	40	40	40	40
Seafood Restaurant	40	40	40	40	40	40
Bar	37	37	37	37	37	37
Thai Restaurant	35	35	35	35	35	35
Hotel	33	33	33	33	33	33
New American Restaurant	31	31	31	31	31	31

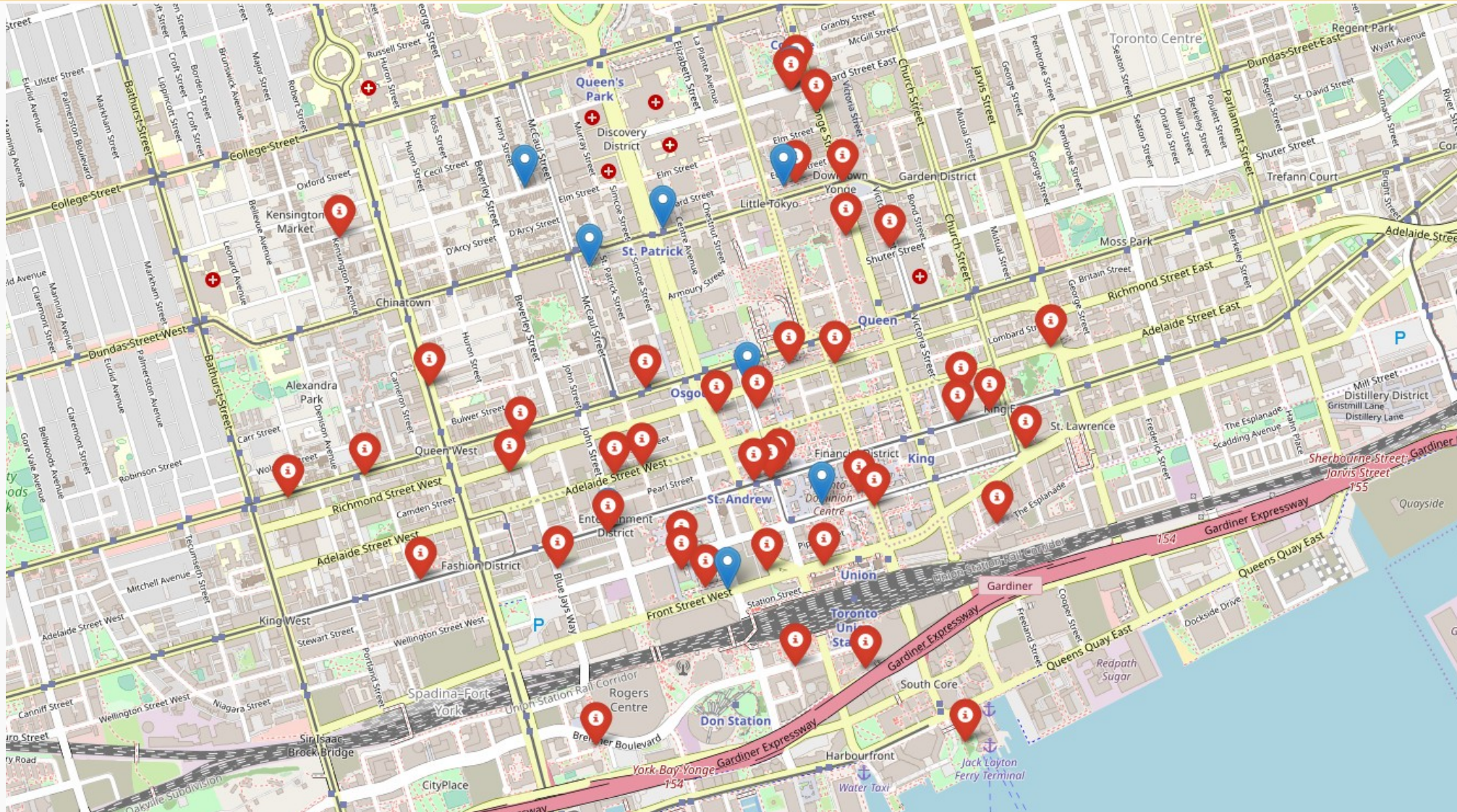
Location of Coffee Shops and Italian Restaurants



Green = Coffee Shops

Blue = Italian Restaurants

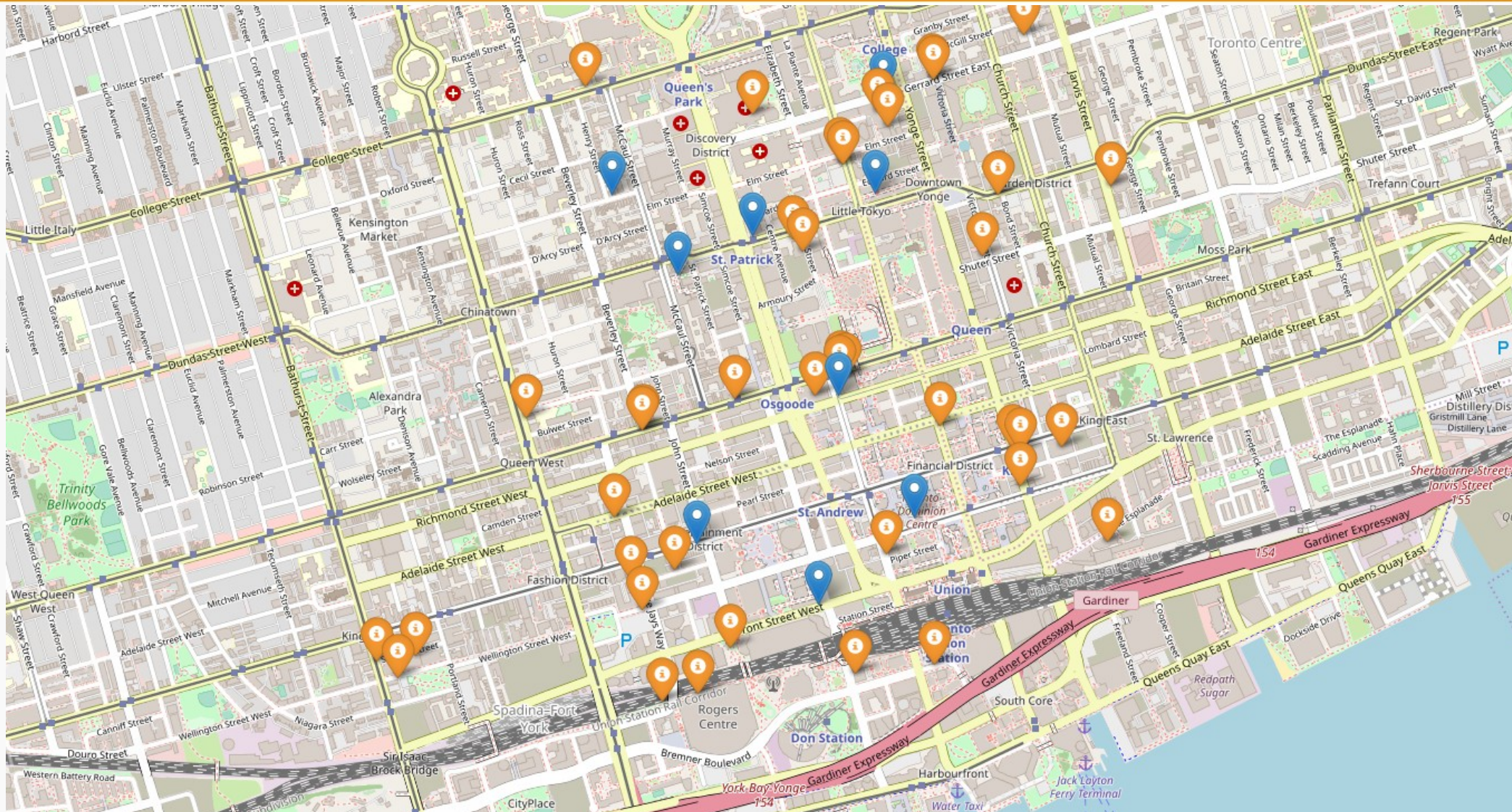
Location of Bars and Italian Restaurants



Red = Bars

Blue = Italian Restaurants

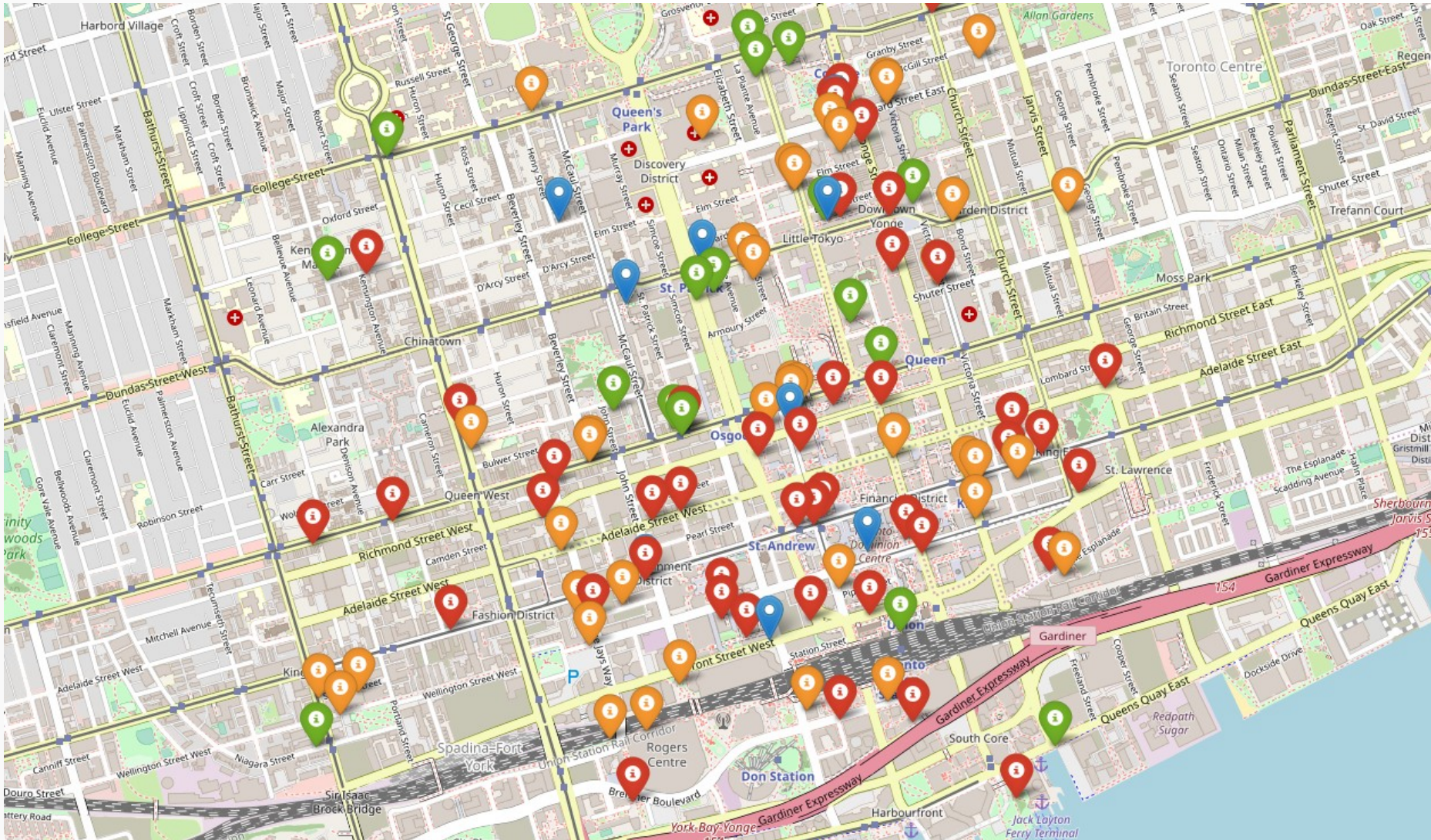
Location of Hotels and Italian Restaurants



Orange = Hotels

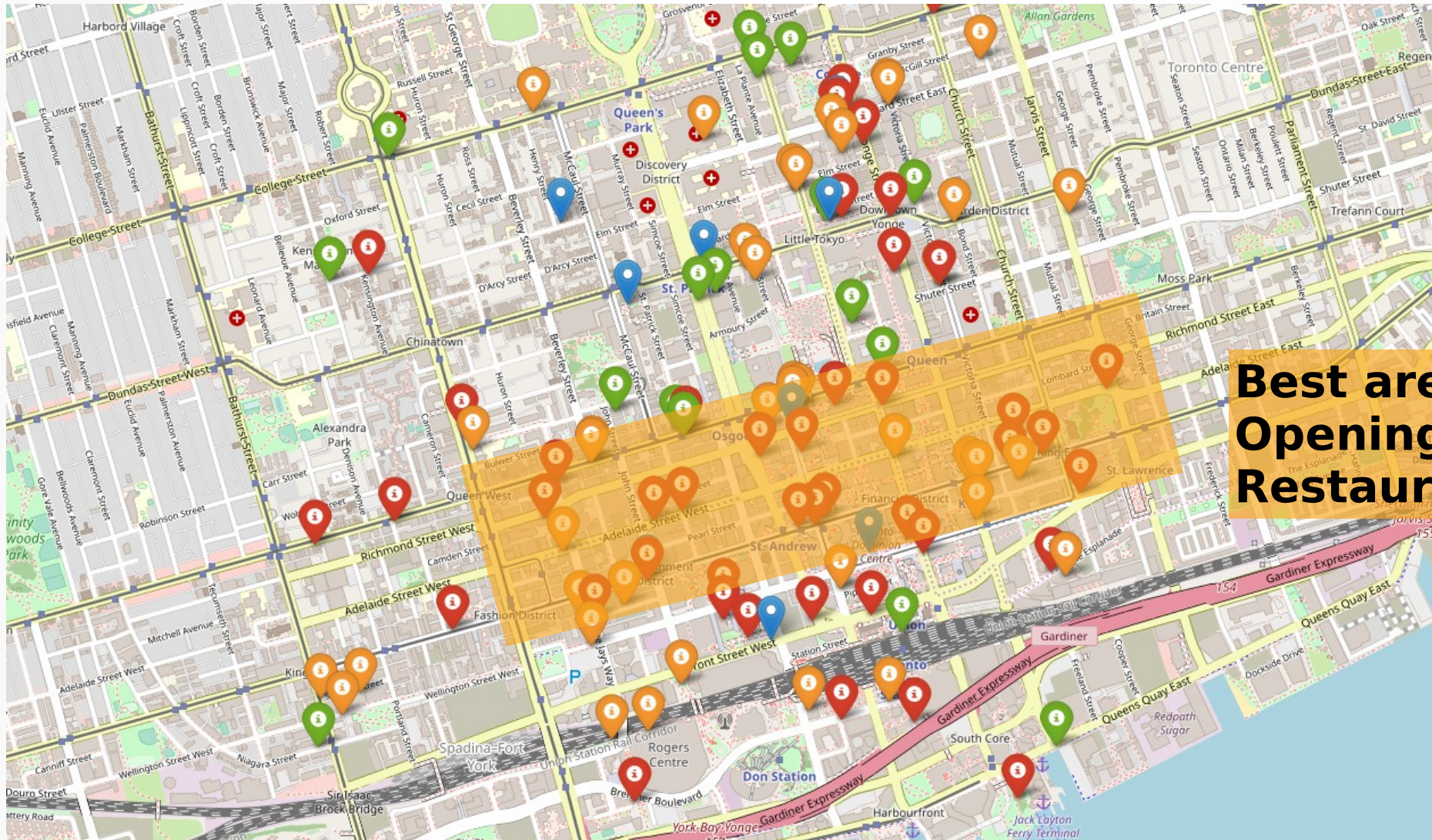
Blue = Italian Restaurants

Location of Top 3 venues and Italian Restaurants



Orange = Hotels Green = Coffee Shops Red = Bars
Blue = Italian Restaurants

Location of Top 3 venues and Italian Restaurants



**Best area in which
Opening an Italian
Restaurant**

Orange = Hotels

Green = Coffee Shops

Red = Bars

Blue = Italian Restaurants

Conclusion

- Many popular venues are located in a rectangle defined by Richmond Street West, Church Street, Front Street and Queen Street.
- In this area there are 3 other Italian Restaurants near University Avenue
- University Avenue splits the area of interest in 2 sub-areas (East and West)
- Our suggestion for the location of an Italian Restaurant is then near Adelaide Street West or Adelaide Street East in order to have the Restaurant located near interesting venues, but not too close to other Italian Restaurants that are already well established in the city.
- This analysis gave us only a suggestion of a possible location of an Italian Restaurant. The variables we considered were only a few of all the possible ones we may have analyses, such as position of parkings, presence of restaurants serving other cuisine type and cost of the rent. Further analysis including these variables may help us in refining our search more and finding a more suitable location to suggest to our customer.