# Restaurant Locations in Downtown Charlotte, NC

By: Tyler McCart

## Identifying Best Locations to Build a Restaurant

- According to the small business website, choosing a restaurant's location is based on 4-major components:
  - Parking
  - Accessibility
  - Visibility
  - Population Base
- There is 1 other factor that should be considered as well:
  - Optimizing the ratio of Non-Restaurant venues to the value of Restaurant venues for a given location.

## Identifying Best Locations to Build a Restaurant (Cont.)

- Let's assume the criteria, as specified by the small business website, is satisfied, and only focus on identifying the best location based on the number of non-restaurant venues against the number of restaurant venues.
- To Execute properly, we will perform the following:
  - Gather data from the FourSquare API
  - Standardize/modify the data
  - Cluster the venues
  - View a map containing the associated clusters
  - Visually identify the best possible locations

## Gather/Standardize Data

- Data was collected by utilizing the FourSquare API to gather all necessary information related to venues within a specified radius. The following information was collected for each venue:
  - Latitude
  - Longitude
  - Venue's Name
  - Category of Venue (i.e. Theater, Restaurant, Park, etc.)
- After gathering the data, we standardized the "Category of Venue" column, by identifying venues that should be classified as a Restaurant i.e. sub shops, pizza places etc.

## Gathering/Standardizing Visual

#### **Gathering Data**

#### **Standardizing Data**

7.1.1											
	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category		Neighborhood	Neighborhood Latitude	Neighborhoo
	Charlotte, NC	35.227087	-80.843127	Blumenthal Performing Arts Center	35.227930	-80.841951	Performing Arts Venue	0	Charlotte, NC	35.227087	
	Charlotte, NC	35.227087	-80.843127	Belk Theater	35.227711	-80.841663	Concert Hall	1	Charlotte, NC	35.227087	
	2 Charlotte, NC	35.227087	-80.843127	The Capital Grille	35.228216	-80.841974	American Restaurant	2	Charlotte, NC	35.227087	
	3 Charlotte, NC	35.227087	-80.843127	The Punch Room	35.226354	-80.841747	Hotel Bar	3	Charlotte, NC	35.227087	
	Charlotte, NC	35.227087	-80.843127	Vapiano	35.226234	-80.844124	Italian Restaurant	4	Charlotte, NC	35.227087	

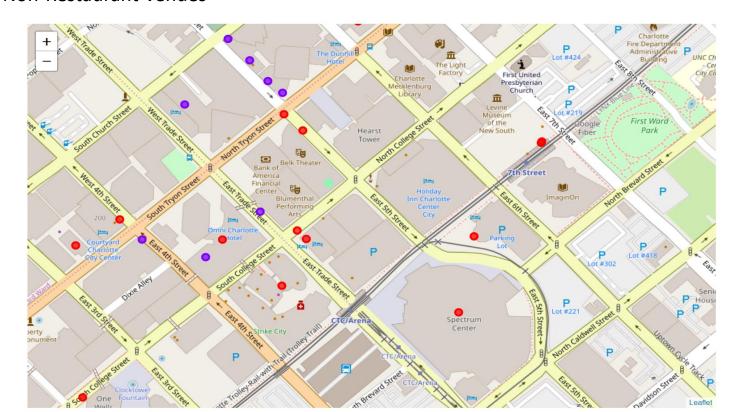
	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Charlotte, NC	35.227087	-80.843127	Blumenthal Performing Arts Center	35.227930	-80.841951	Performing Arts Venue
1	Charlotte, NC	35.227087	-80.843127	Belk Theater	35.227711	-80.841663	Concert Hall
2	Charlotte, NC	35.227087	-80.843127	The Capital Grille	35.228216	-80.841974	Restaurant
3	Charlotte, NC	35.227087	-80.843127	The Punch Room	35.226354	-80.841747	Hotel Bar
4	Charlotte, NC	35.227087	-80.843127	Vapiano	35.226234	-80.844124	Restaurant

### Cluster Venues

• To better identify the types of venues, the K-means machine learning algorithm was utilized to class the Restaurant venues. Also, it was used to further classify Non-Restaurant venues.

## Create Map

- Legend:
  - Purple- Restaurants
  - Light Green- Theatres
  - Red- Other Non-Restaurant Venues



### Selected Areas to Build Restaurant

 After viewing the map, I would build a restaurant along South/North College street because it contains a diverse range of the nonrestaurant venues including Hotels, theaters, and financial centers while also minimizing the number of restaurants along the same street.

#### Sources

• Mealey, Lorri. "4 Location Strategies That Help Determine Where to Open a Restaurant." *The Balance Small Business*, The Balance Small Business, 17 Feb. 2019, www.thebalancesmb.com/choosing-a-location-for-your-restaurant-2888635.