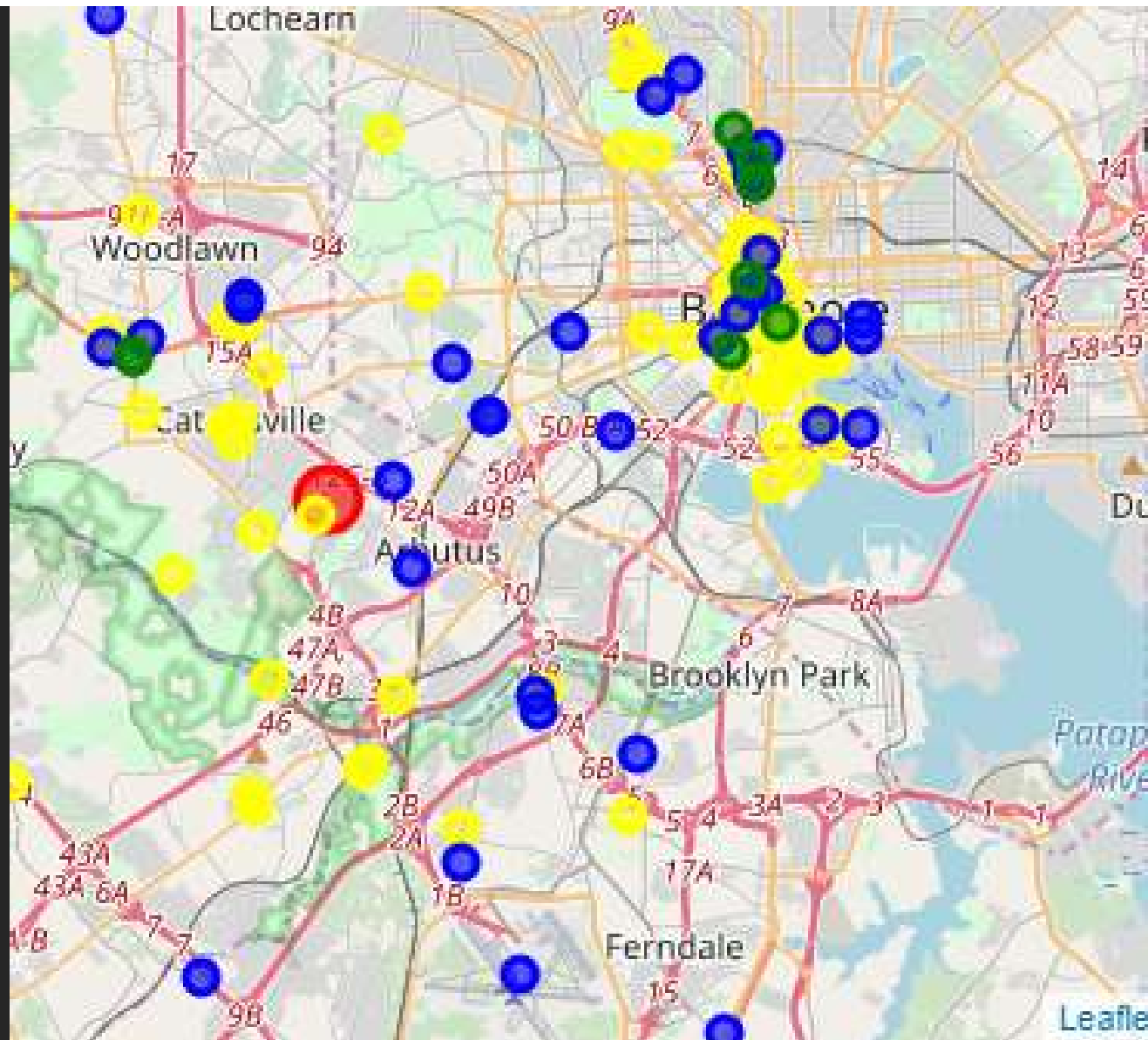


# Battle of Neighborhoods

Kam Hin Ho





# Objectives

- Investigate the prospect of opening a Korean restaurant near UMBC within 8 miles.
- UMBC is a public research university in Baltimore County, Maryland with 13767 students in 2018 fall enrollment.
- Providing a recommended area around UMBC for opening the new restaurant.



# Modules & Data

- Nominatim module is imported from `geopy.geocoders` for converting UBMC address to Latitude and Longitude.
- Foursquare data will be used to get information on venues near UMBC.
- Folium module is used for visualization.
- The best area will be recommended based on criteria as follow:
  1. Competitions
  2. Number of surrounding popular attractions
  3. The distance between UMBC and the target area

# EDA

- After cleaning the data, we explore the data of Korean restaurants and other restaurants from Foursquare.

0	Honey Pig Gooldaegee Korean Grill	Korean Restaurant	10045 Baltimore National Pike	39.278155	-76.859054	[{'label': 'display', 'lat': 39.27815455025927...	12868	21042	US	Ellicott City	MD	United States	[10045 Baltimore National Pike, Ellicott City,...
1	Brown Rice Korean Grill - N Charles	Korean Restaurant	2404 N Charles St	39.316494	-76.616977	[{'label': 'display', 'lat': 39.31649388430755...	10447	21218	US	Baltimore	MD	United States	[2404 N Charles St, Baltimore, MD 21218, Unite...
2	Hasung Korean Chinese Restaurant	Korean Restaurant	822 N Rolling Rd	39.282827	-76.755043	[{'label': 'display', 'lat': 39.28282749246845...	4614	21228	US	Catonsville	MD	United States	[822 N Rolling Rd, Catonsville, MD 21228, Unit...
3	Tako Korean BBQ	Korean Restaurant	NaN	39.283731	-76.622569	[{'label': 'display', 'lat': 39.28373081379521...	8214	NaN	US	Baltimore	MD	United States	[Baltimore, MD, United States]
4	Nak Won Korean Restaurant	Korean Restaurant	12 W 20th St	39.312479	-76.617032	[{'label': 'display', 'lat': 39.31247942203527...	10172	21218	US	Baltimore	MD	United States	[12 W 20th St (at Charles St), Baltimore, MD 2...

## EDA – Cont.

```
[]): # Visualize the Korean restaurants that are within 8  
df_krest_filtered.name
```

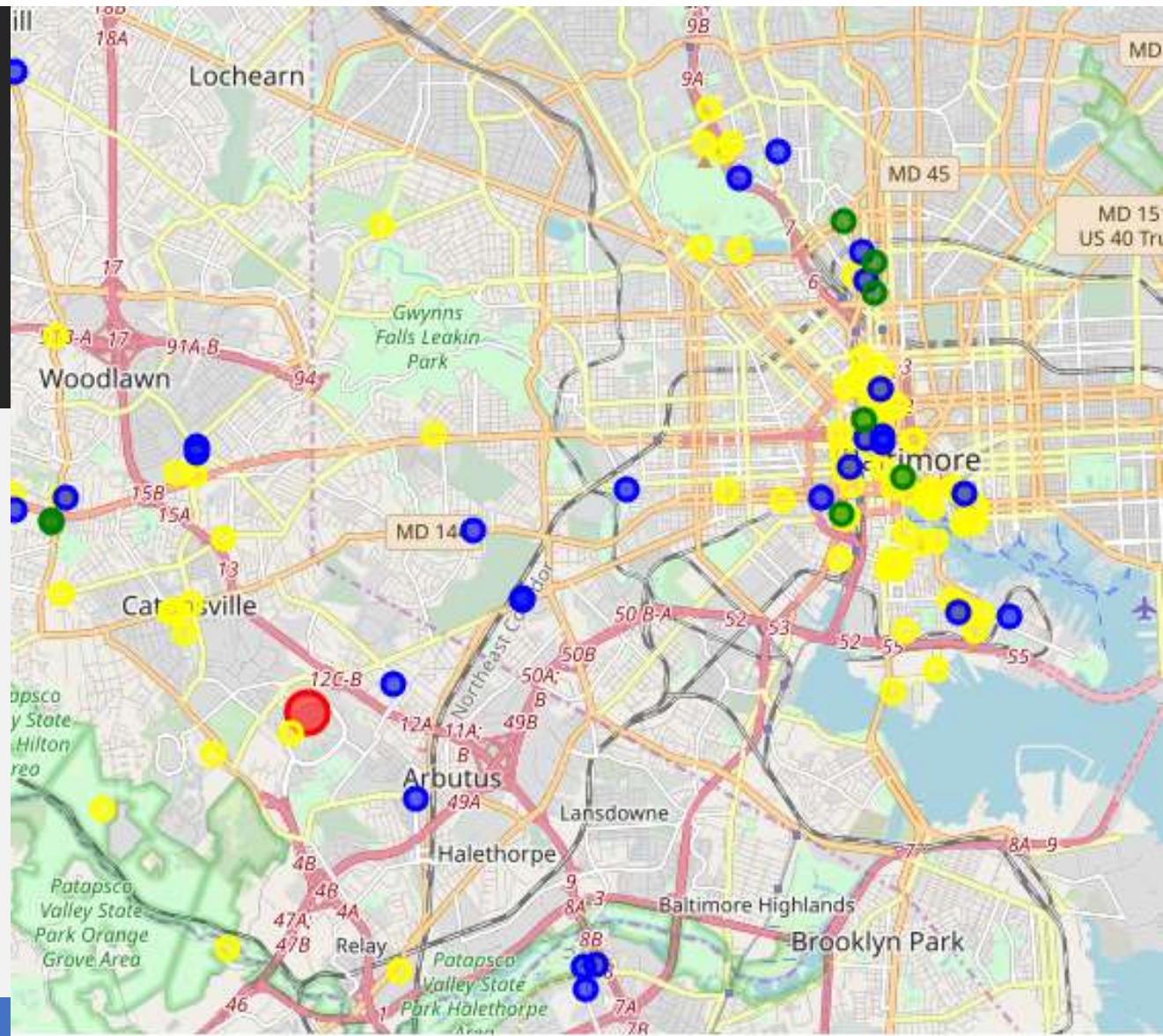
```
[]): 0      Honey Pig Gooldaegee Korean Grill  
1      Brown Rice Korean Grill - N Charles  
2      Hasung Korean Chinese Restaurant  
3              Tako Korean BBQ  
4      Nak Won Korean Restaurant  
6      Cham Mat Korean Cuisine  
7      Brown Rice Korean Grill  
12             Be.bim Korean BBQ  
14      Brown Rice Korean Grill  
15      Tian Chinese & Korean Restaurant  
16      Han Sung Korean / Japanese & Sushi  
Name: name, dtype: object
```

- There are total 17 Korean restaurants, and total 50 restaurants within the radius of 8 miles from UMBC.



## EDA – Cont.

- We plot the top 100 popular venue within the radius of 8 miles of UMBC and visualize the restaurant data.
- Red Marker : UMBC
- Green Marker: Potential Korean restaurant competitors
- Blue Marker: Potential restaurant competitors
- Yellow Marker: Top 100 popular venues



## Conclusion

- According to our result, it is recommended to open a new restaurant/ Korean restaurant around Catonsville and Woodlawn area. (Indicated with red square) It is because the competition between similar type of Korean restaurants and other restaurants are relatively small comparing to downtown Baltimore. Moreover, the Catonsville area has quite a few popular attractions, and the distance is relatively shorter than downtown Baltimore.

