# Applied Data Science Capstone

Chicago Business Recommendation System

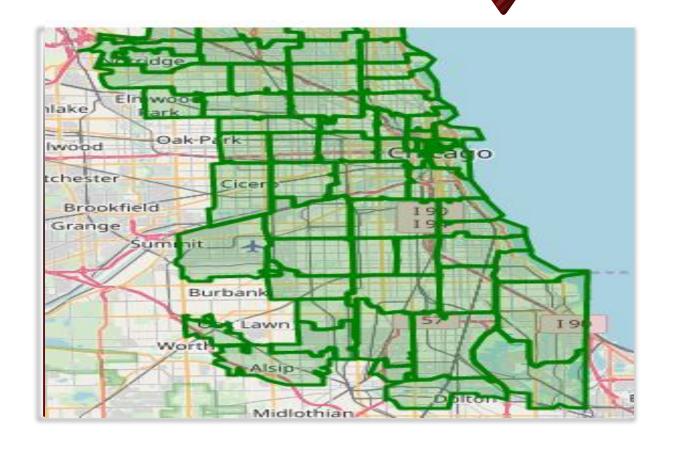
#### Datasets Utilized

- o Foursquare API
  - o <u>Source</u>
- Chicago Business Data from the United States Census Bureau
  - o <u>Source</u>
- Chicago Neighborhood Data from Mongabay.com
  - o <u>Source</u>
- o Chicago Geojson Data
  - o <u>Source</u>

	Zipcode	Name	Latitude	Longitude	Category
0	60656	The Capital Grille	41.974923	-87.862916	American Restaurant
1	60656	Frank Lloyd Wright Home and Studio	41.894157	-87.799517	Historic Site
2	60656	Smoque BBQ	41.950168	-87.727684	BBQ Joint
3	60656	Trader Joe's	41.890123	-87.804593	Grocery Store
4	60656	Portillo's	41.907365	-87.912586	Hot Dog Joint
5	60656	Revolution Brewing	41.942223	-87.708210	Brewery
6	60656	Old Town School of Folk Music	41.964392	-87.685764	Music School
7	60656	Scofflaw	41.917326	-87.707147	Cocktail Bar
8	60656	The Brown Cow Ice Cream Parlor	41.879609	-87.809301	Ice Cream Shop
9	60656	Mariano's Fresh Market	41.920554	-87.940506	Grocery Store
10	60656	Lula Café	41.927747	-87.707058	Café
11	60656	Fat Rice	41.932035	-87.702500	Asian Restaurant

"Given a business category, can we predict the best neighborhood in Chicago to open a business of that type?"

#### Project Scope



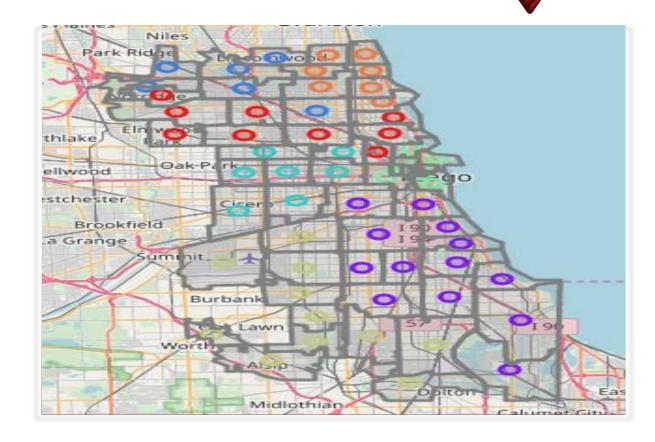
- O Core Chicago-Region
  - o Some upper south suburbs

- O Beta-Visual Data Utilized
  - o Lat/Long
  - o GeoJson

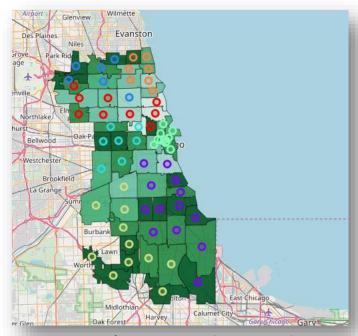
- O Clustering Layer
  - O Develops this data
  - O Narrows our Locations

- Eight Clusters Identified
- O Core Regions
  - oSouth
  - O Upper Loop
  - ONiles/Park Ridge
  - Oak Lawn
  - Oak Park

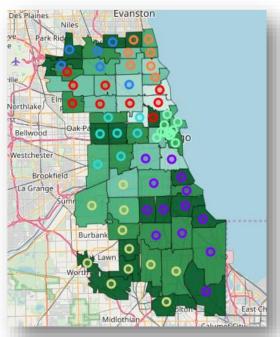
### Clustering



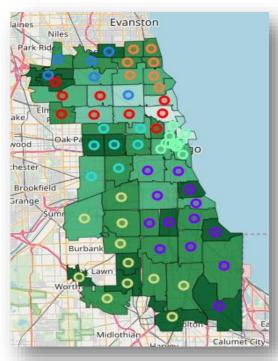
# Outcomes



American Restaurant



Asian Restaurant



Public Art

#### Conclusion

Meaningful Business Data Created

- Powerful tool for Aspiring businesspeople
- o Routes of expansion
  - O Consumer Analysis [spending habits, demographics]
  - O Synergistic and Antagonistic industries

## Questions?