BATTLE OF NEIGHBORHOODS

Hungarian Restaurant in Cleveland, OH

PROBLEM STATEMENT

- Is there a large enough Hungarian community in the US?
- Where is the best neighborhood to open a Hungarian Restaurant?
- What is the best time to open the restaurant?

PYTHON PACKAGES AND DEPENDENCIES:

- Pandas - Library for Data Analysis
- NumPy – Library to handle data /vectors
- JSON – Library to handle JSON files
- Geopy - To retrieve Location Data
- Requests – Library to handle http requests
- Matplotlib – Python Plotting Module
- Sklearn – Python machine learning Library
- Folium – Map rendering Library

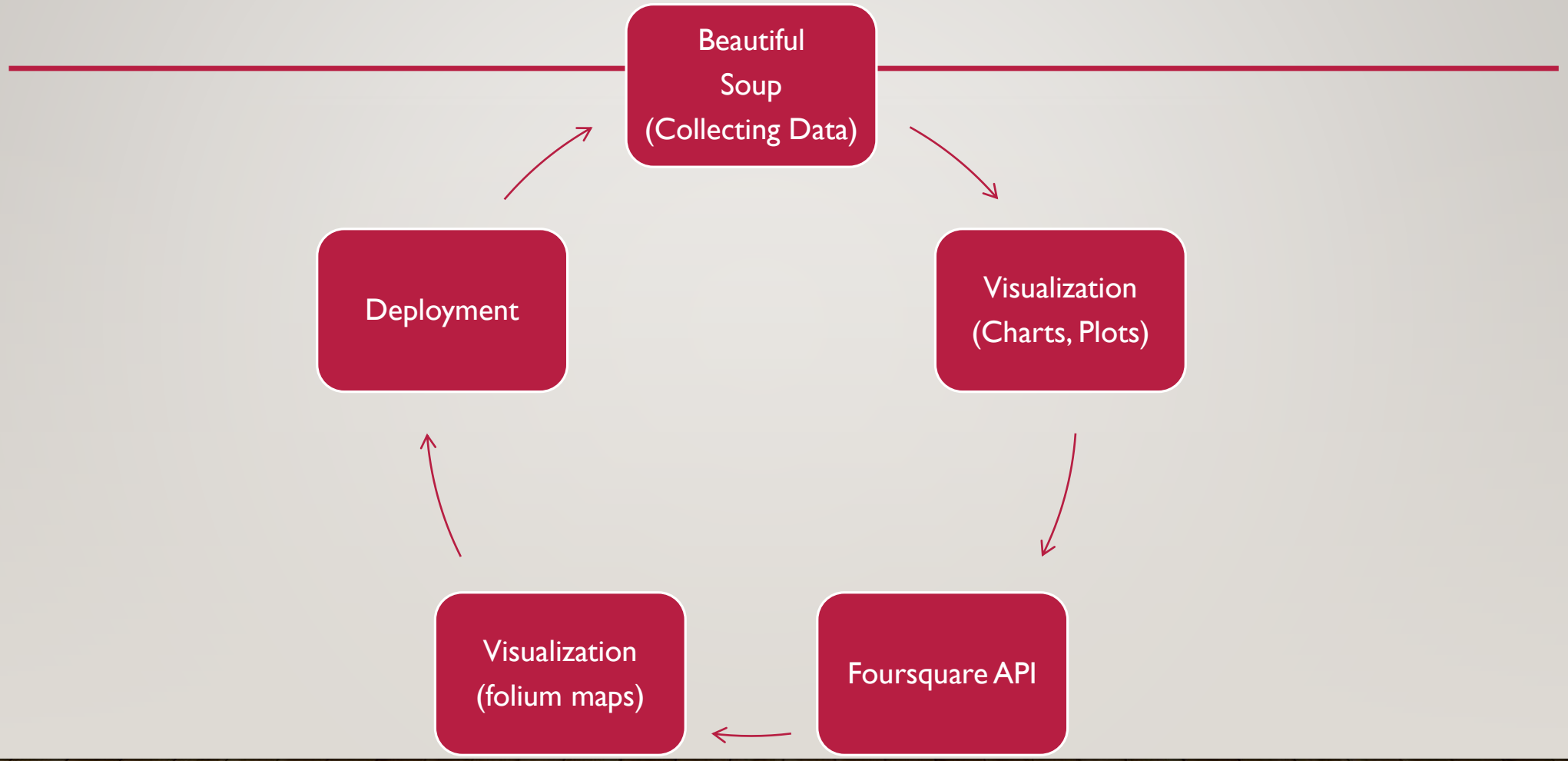
FINDING THE BEST HUNGARIAN NEIGHBORHOOD IN 3 STEPS

- Locate the largest Hungarian community in the US
- Find the best neighborhood within that area
- Is the time right to open a restaurant? (situation research)

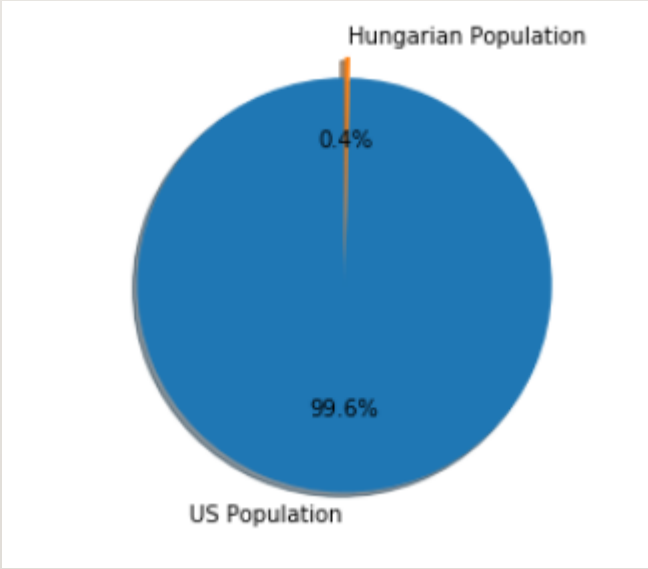
WORK FLOW

- WEB SCRAPING AND DATA WRANGLING
- VISUALIZATION
- OBSERVATION
- TOP TRENDING PLACES EXTRACTION AND CLUSTERING
- DECISION MAKING BASED ON THE FINDINGS

WEB SCRAPING AND DATA WRANGLING

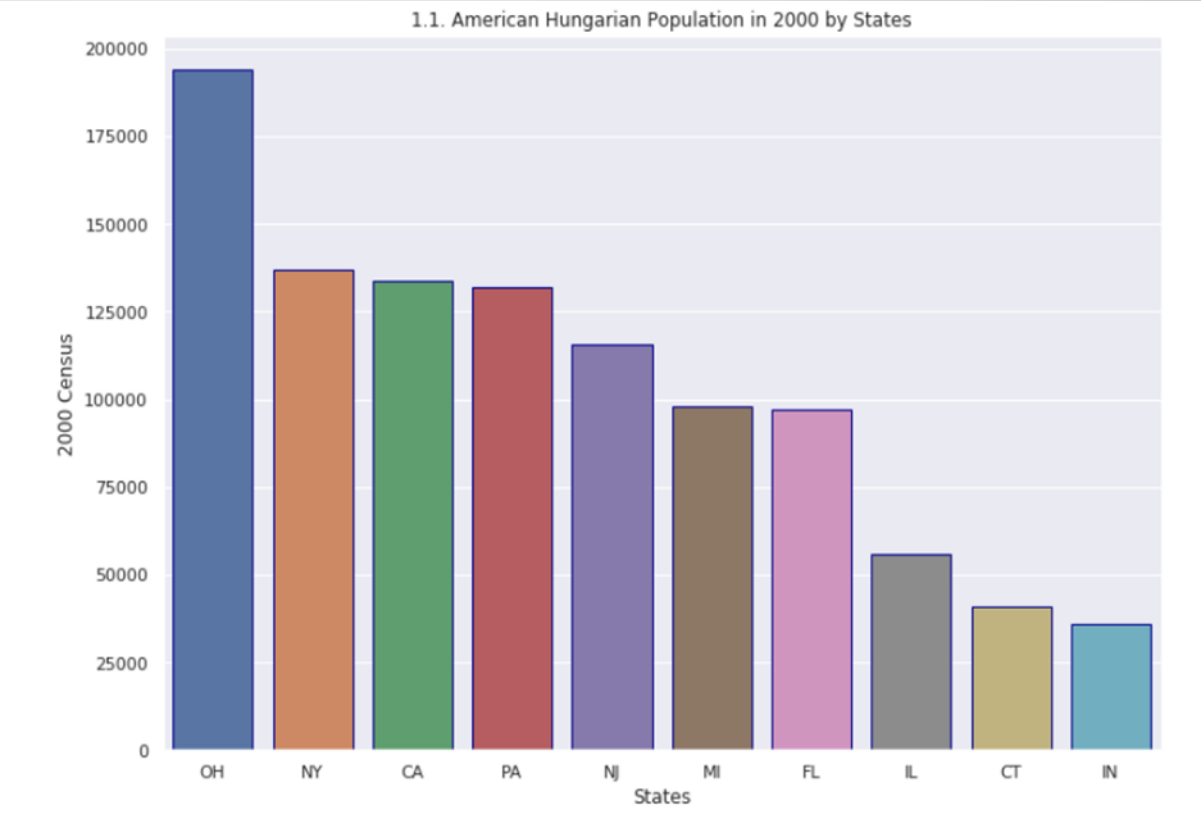


HUNGARIAN POPULATION IN THE US

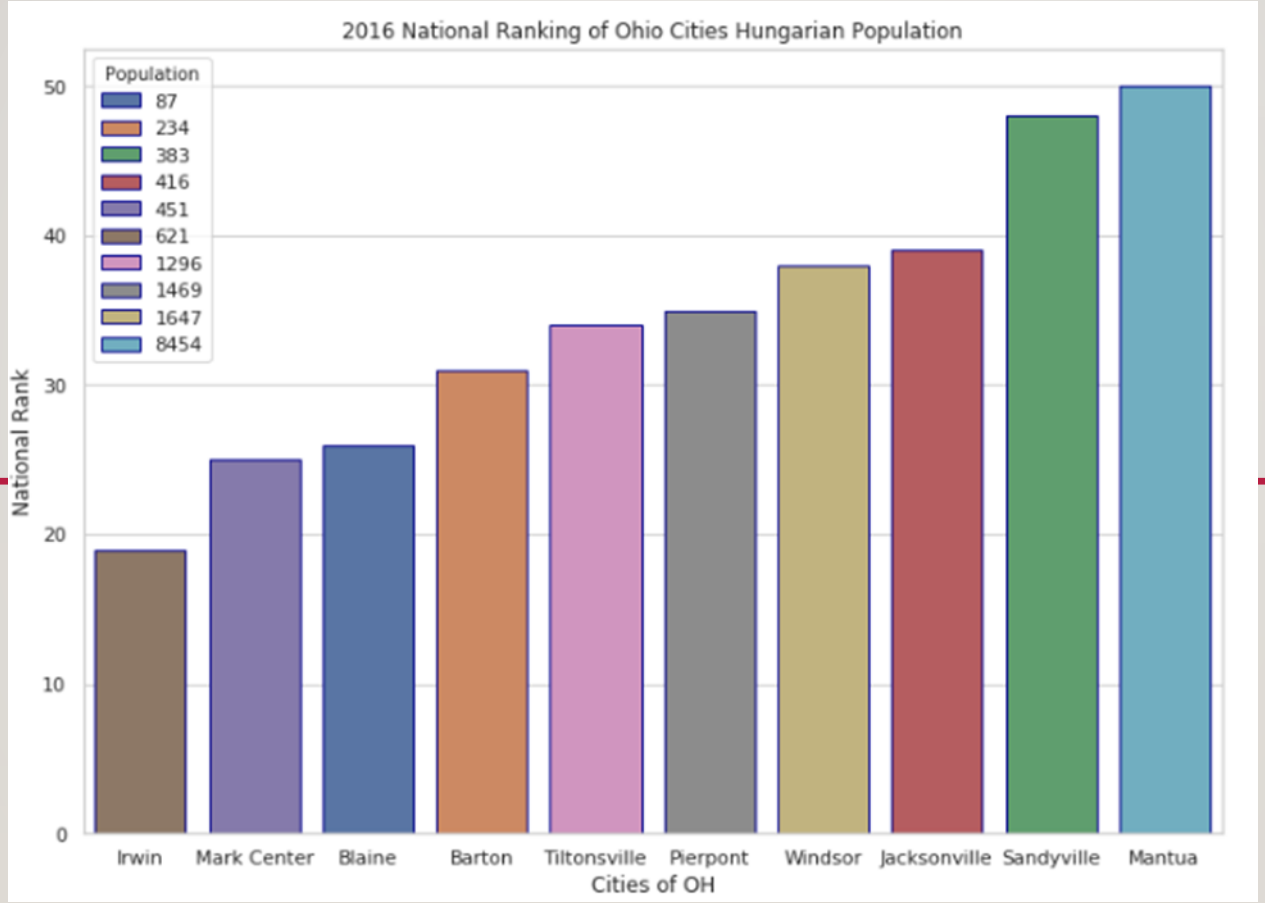


AMERICAN HUNGARIAN POPULATION BY STATES

- OH has the highest number

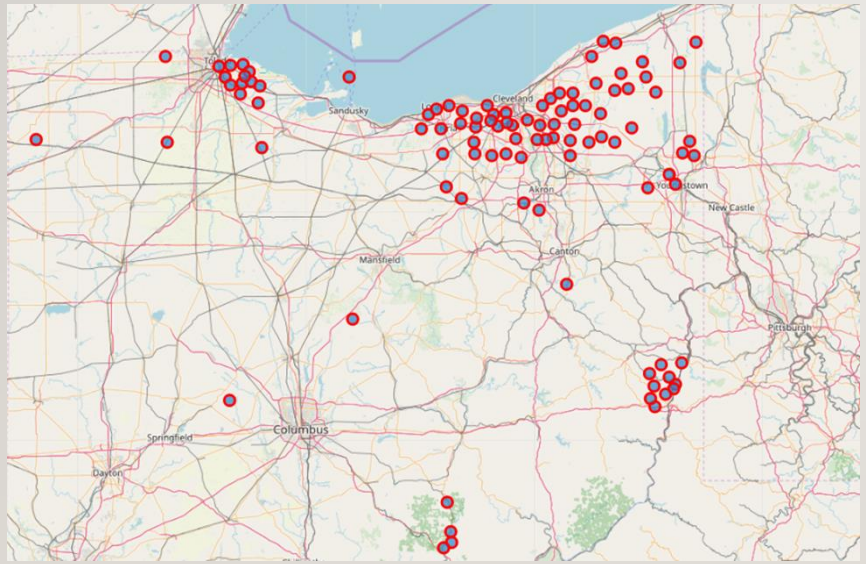


NATIONAL RANKING OF OH, US CITIES



100 CITIES RANKED BY HUNGARIAN POPULATION

RANKED CITIES ON THE MAP



RANKED CITIES CLUSTERS

32 CLEVELAND NEIGHBORHOOD

Four Square API and Clustering

Four Square API
Neighborhood
Venue
Category
Coords

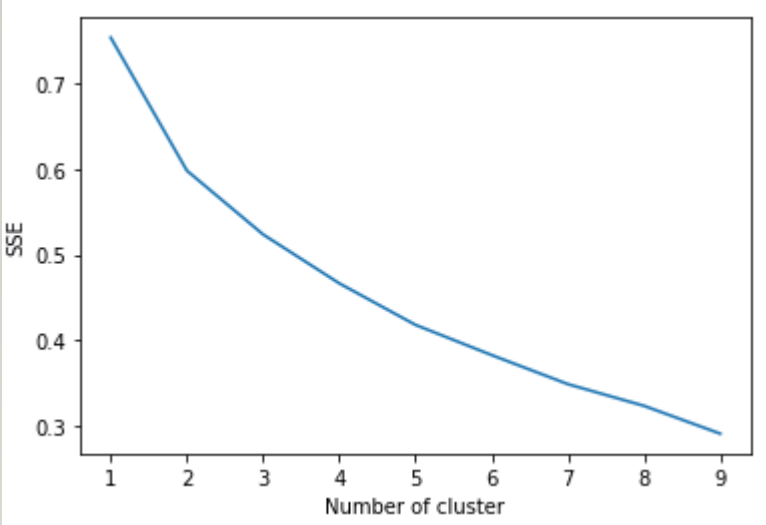
One Hot
Encoding
Labels to
Numbers

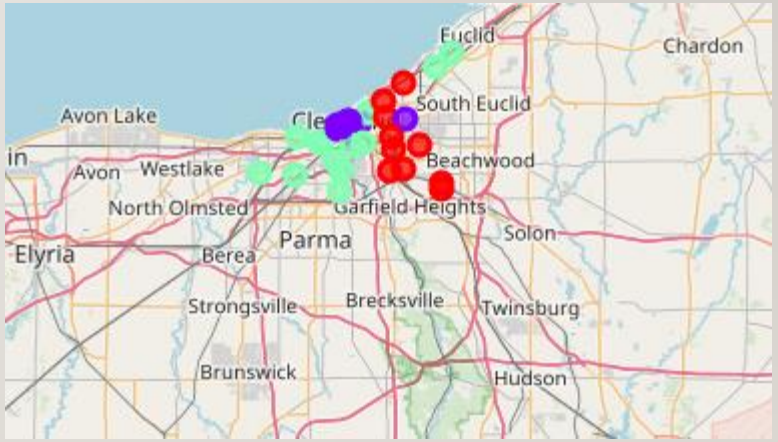
Venues
Grouped by
Neighborhoods
236 Unique
Veues

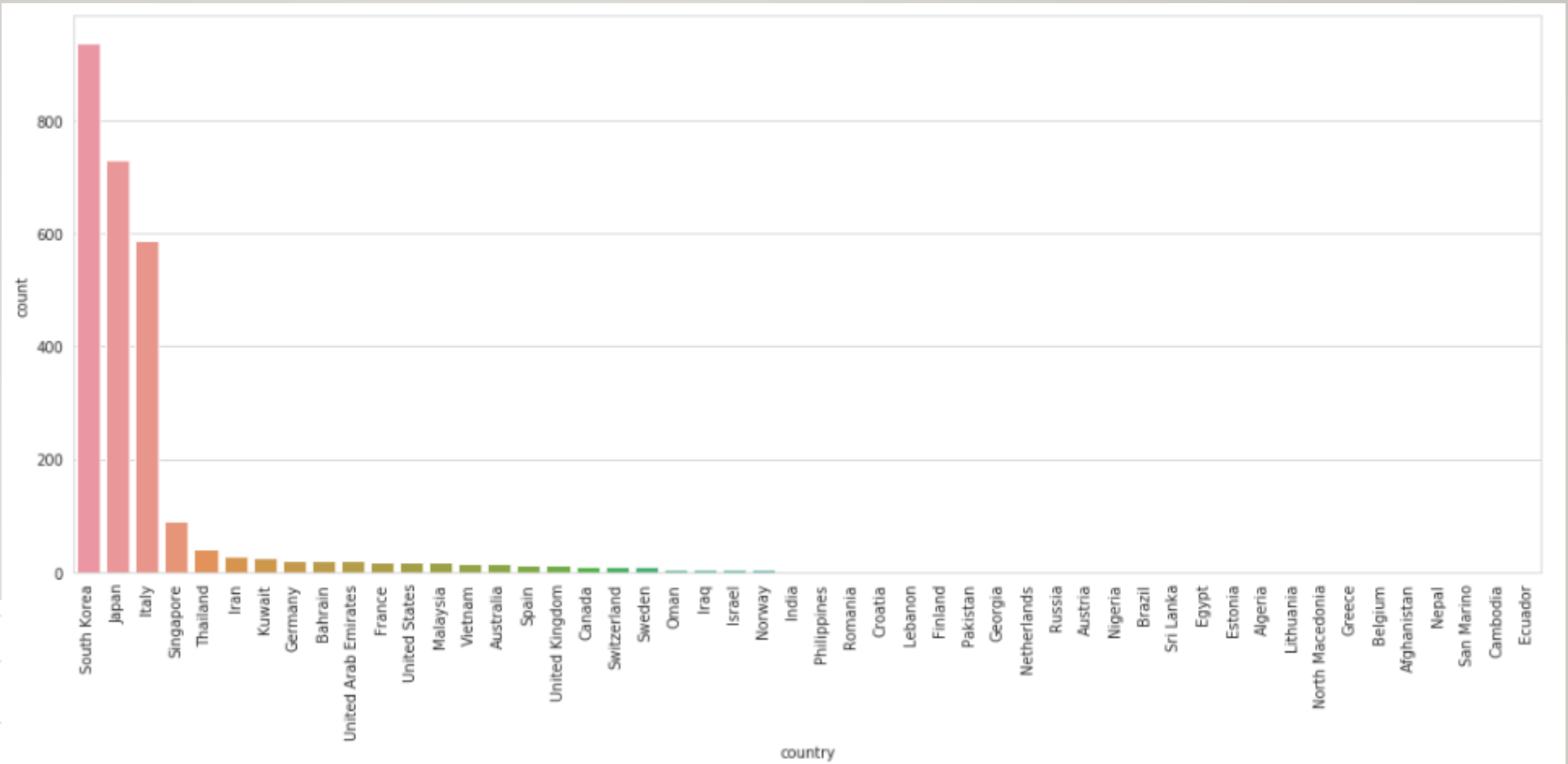
K-Means
Clustering

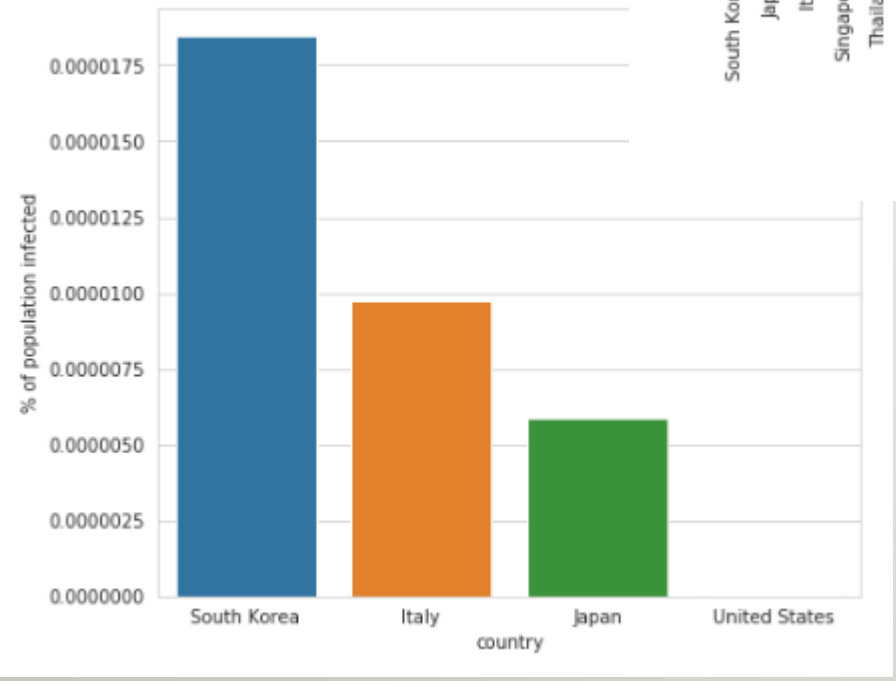
ELBOW AND SILHOULETT ANALYSIS

	Neighborhood	Hungarian Restaurant	Cluster Labels	Latitude	Longitude
0	Asiatown, Cleveland	0.000000	2	41.512940	-81.664390
1	Bellaire–Puritas, Cleveland	0.000000	2	41.449201	-81.763176
2	Broadway–Slavic Village	0.000000	0	41.453470	-81.633230
3	Brooklyn Centre	0.000000	2	41.453790	-81.700520
4	Buckeye–Shaker	0.016667	0	41.479950	-81.593280






count
800
600
400
200
0
South Korea
Japan
Italy
Singapore
Thailand
Iran
Kuwait
Germany
Bahrain
United Arab Emirates
France
United States
Malaysia
Vietnam
Australia
Spain
United Kingdom
Canada
Switzerland
Sweden
Oman
Iraq
Israel
Norway
India
Philippines
Romania
Croatia
Lebanon
Finland
Pakistan
Georgia
Netherlands
Russia
Austria
Nigeria
Brazil
Sri Lanka
Egypt
Estonia
Algeria
Lithuania
North Macedonia
Greece
Belgium
Afghanistan
Nepal
San Marino
Cambodia
Ecuador
country


% of population infected
0.0000175
0.0000150
0.0000125
0.0000100
0.0000075
0.0000050
0.0000025
0.0000000
South Korea
Italy
Japan
United States
country

COVID-19

COVID-19 BY THE NUMBERS

	Date	Confirmed	Deaths	Recovered	Active
0	2020-03-13 00:00:00	145193	5404	70251	69538

JO ETVAGYAT KIVANOK!

By Csillag Gates

software developer