

Pizza during COVID

Problem Statement

I want to be able to identify a few, Pizza places that deliver, in or around the COVID hotspots.

Background

Its a well known fact that COVID or no COVID, Pizza craving waits for none. With the easing restrictions, it would be important to identify how Pizza enthusiasts can safely stuff their faces. Best case scenario would be to find a Pizza restaurant that does home delivery. This would be to get the hottest pizza, while maintaining isolation at home.

Its safe to say that this data would be extremely useful for very hungry pizza lovers.

Data Description

For this analysis I am listing down the sources and types of data I would be using

- CDC COVID data neighbourhood wise
- NYC municipal data in geoJson format detailing the neighbourhood geo data.
- Foursquare data for Pizza restaurant locations

I would be doing a minor cleanup since the data is from multiple different sources. Key here would be the Modified CTA is a modified ZIP code data

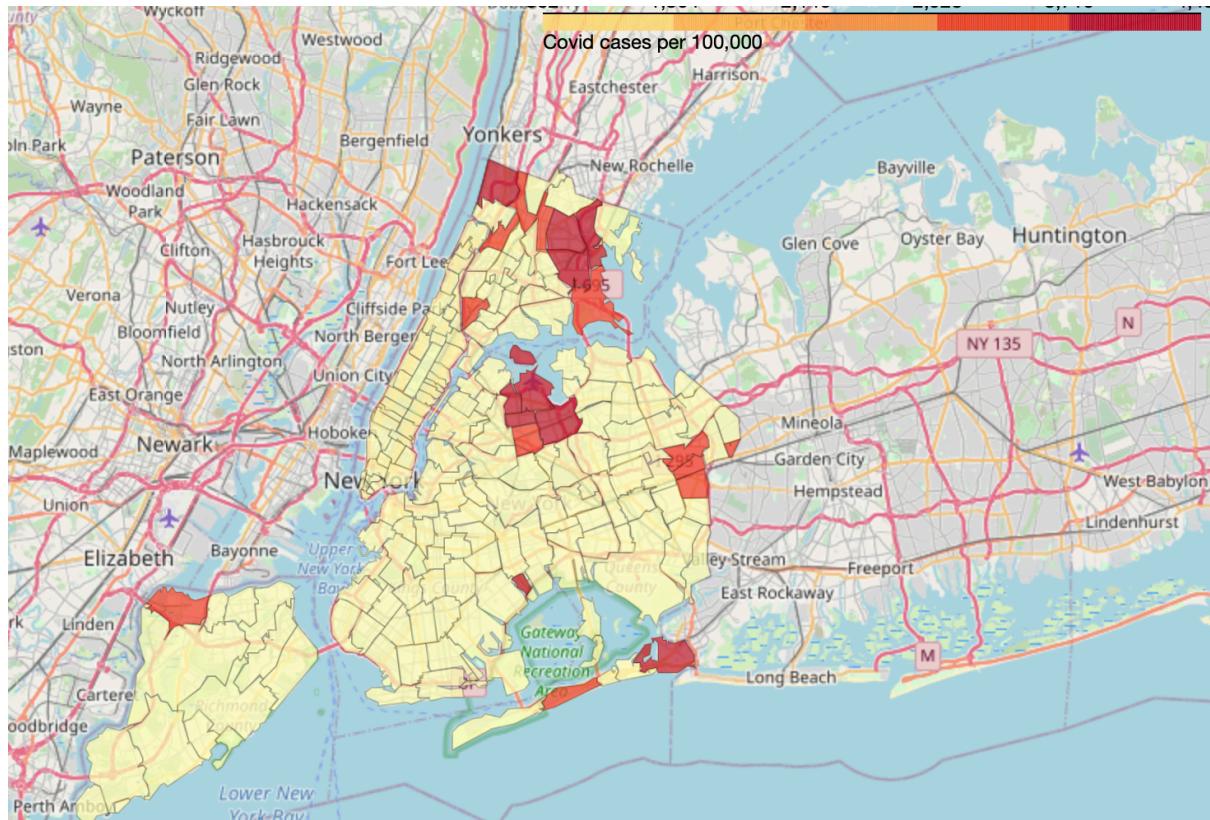
<https://github.com/nychealth/coronavirus-data>

Methodology

I cleaned up the CDC/NY municipal data to figure out a list of COVID neighbourhood hotspots based on the COVID CASE RATE.

MODIFIED_ZCTA	NEIGHBORHOOD_NAME	BOROUGH_GROUP	COVID_CASE_RATE	Latitude	Longitude
0	11369	Airport/East Elmhurst	Queens	4492.32	40.7625
1	10469 Allerton/Baychester/Pelham Gardens/Williamsbridge	Bronx	4290.41	40.859	-73.8302
2	11239	East New York	Brooklyn	4221.26	40.6494
3	11368	Corona/North Corona	Queens	4199.15	40.7481
4	11370	Jackson Heights/Rikers Island	Queens	4139.36	42.9078

If these neighbourhoods are visualised on the NY map it can be seen that the concentration of the neighbourhoods is on the east side of NY.

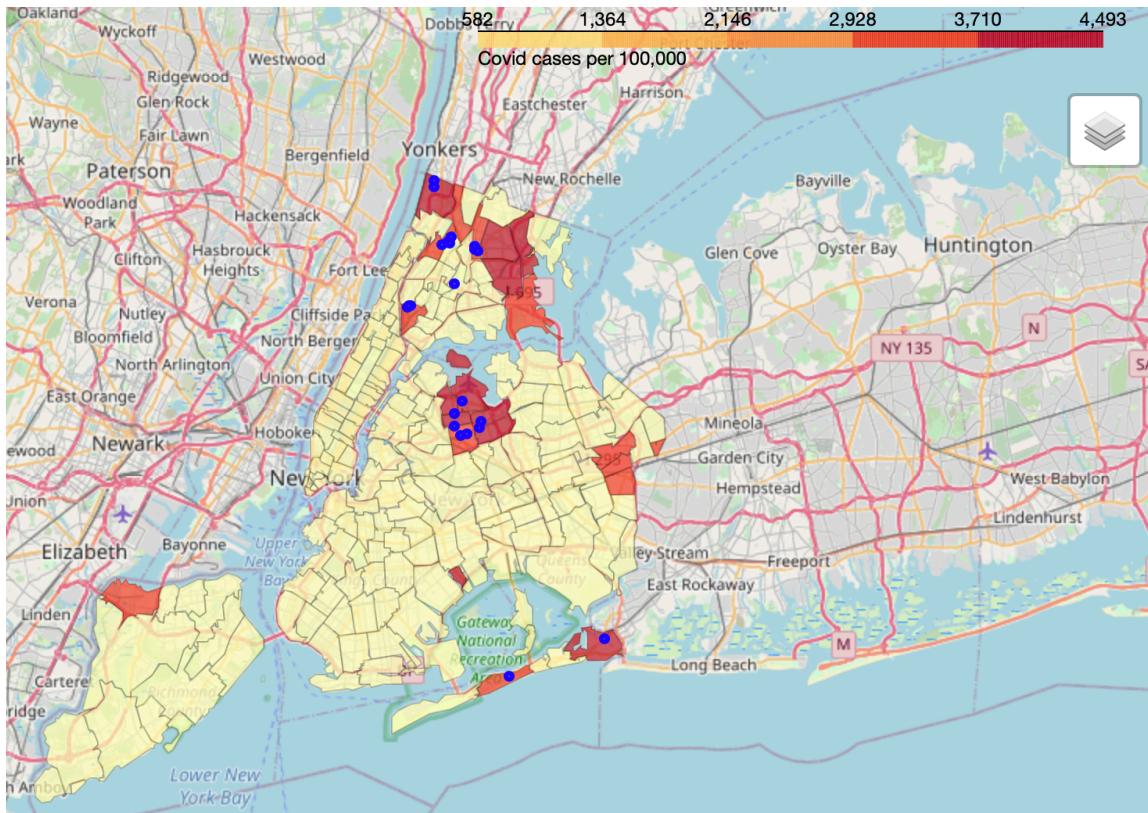


NY map with COVID hotspots - Yellow → Red

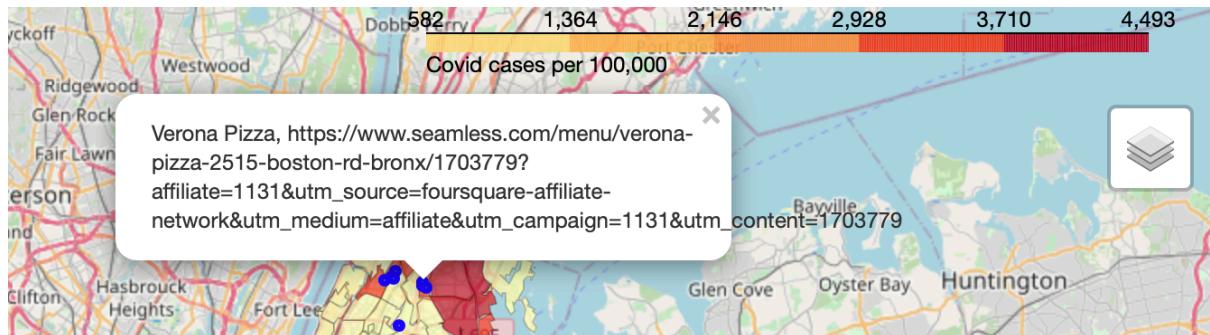
Next I did a quick search of Foursquare data to get Pizza restaurants around the COVID hotspots. The data is fetched into a JSON, then moved to a Data frame. This data frame is then filtered for records that have home delivery URL info.

	id	name	categories	location.lat	location.lng	delivery.url
0	4c4ca3d974e81b8d841a9006	Airways Pizza, Gyro & Restaurant	[{"id": "4bf58dd8d48988d1ca941735", "name": "P..."}]	40.763781	-73.878553	https://www.seamless.com/menu/airways-pizza-gy...
1	4d3bd7f2fb4c5481ca6ccf14	Papa John's Pizza	[{"id": "4bf58dd8d48988d1ca941735", "name": "P..."}]	40.746634	-73.864035	https://www.seamless.com/menu/papa-johns-pizza...
2	4b7c363df964a520ce842fe3	Angelo's Pizza & Restaurant	[{"id": "4bf58dd8d48988d1ca941735", "name": "P..."}]	40.750670	-73.863054	https://www.seamless.com/menu/angelos-pizzeria...
3	4bf6e3f2c07c9c74fe88bbef	Gianni's Pizza & Italian Restaurant	[{"id": "4bf58dd8d48988d1ca941735", "name": "P..."}]	40.755596	-73.885875	https://www.seamless.com/menu/giannis-pizza-811...
4	5e23bddc16c175000872f3fa	Mama's Pizza And Cafe	[{"id": "4bf58dd8d48988d1ca941735", "name": "P..."}]	40.747250	-73.885147	https://www.seamless.com/menu/mamas-pizza--caf...

Next I overlay this list of restaurants on to the COVID hotspots map



The Pizza restaurants can be seen as a blue dot. Rolling over provides more info with a home delivery link.



Results

As can be seen, there are several Pizza restaurants that deliver in the COVID hotspot zones. So in the situation of munchies, there is no need to get out of home.

Observations

General observations are that COVID hot spots are mostly concentrated in a few areas.

Conclusion

In conclusion, anyone using this folium map, can look for a pizza delivery service in their respective neighbourhoods.