



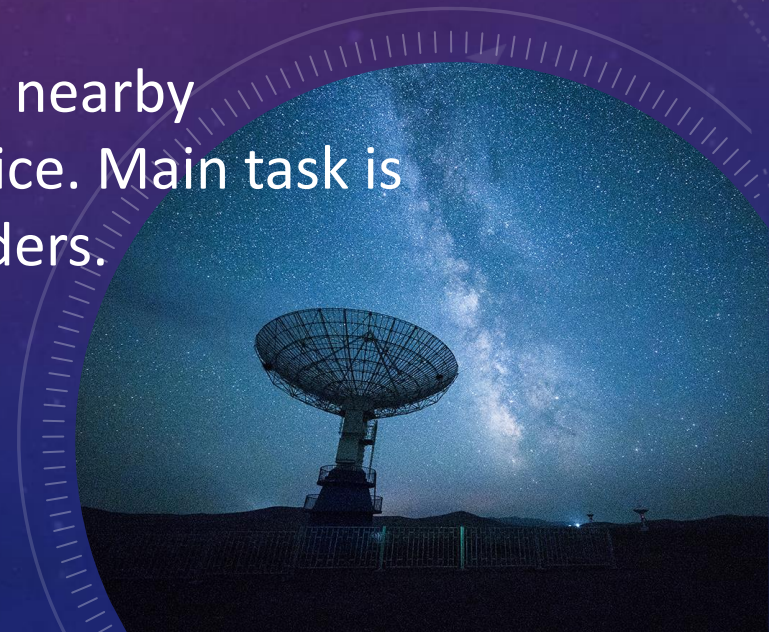
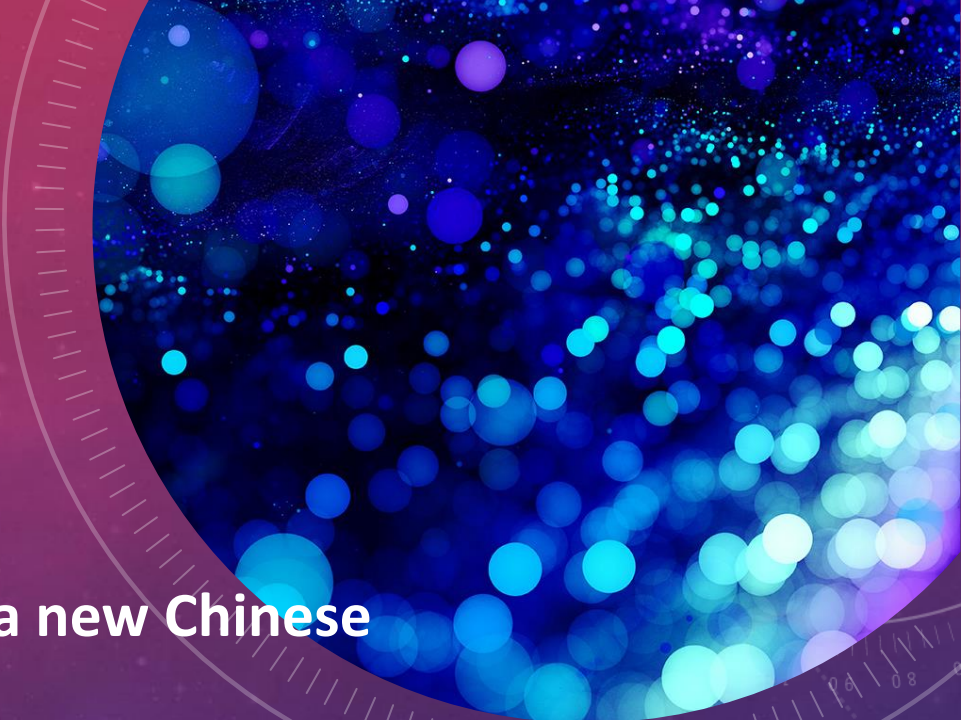
IDEAL LOCATION TO OPEN A CHINESE RESTAURANT IN DUBLIN

- DHRUV PANGHAL

PROBLEM ?

“ Would you recommend a location in Dublin to open a new Chinese Restaurant? “

Selection of locations is assumed to be highly dependent on its nearby environment instead of the economic factors such as rental price. Main task is to select 5 possible locations and explain them to the stakeholders.

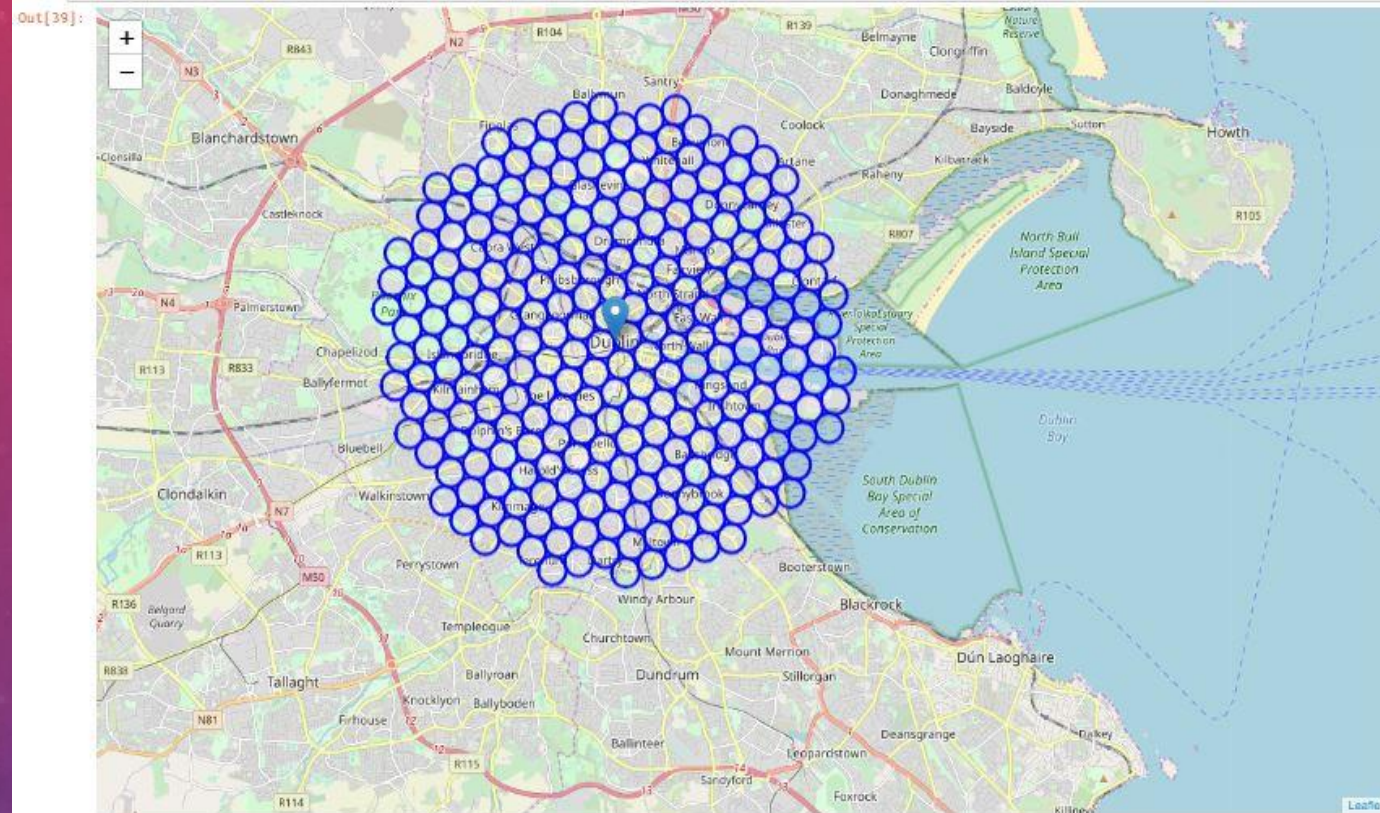


SOURCES

- Centre of candidate area will be generated algorithmically and approximate address of centers of those areas will be obtained using Google Maps API reverse geocoding
- Number of restaurants, their type and location in every neighborhood will be obtained using Foursquare API
- Coordinates of Dublin Center will be obtained using Google Maps API geocoding of well-known Dublin locations

ANALYSIS

Find the latitude & Longitude of Dublin City Center using well-known address and Google Maps geocoding API

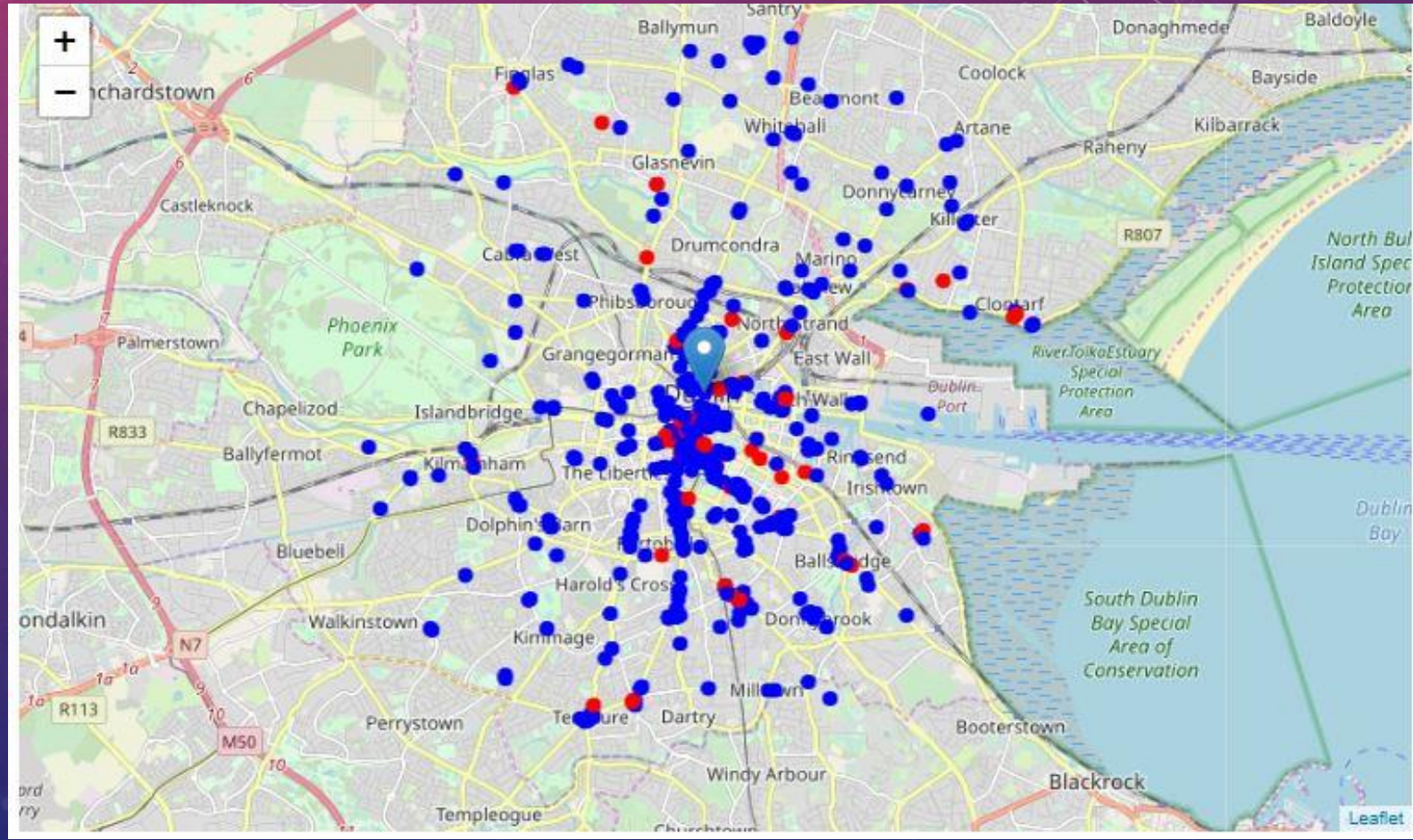


Out[43]:

	Address	Latitude	Longitude	X	Y	Distance from center
0	NO ADDRESS	53.307489	-6.256869	-906422.228865	6.119873e+06	4828.043082
1	NO ADDRESS	53.309056	-6.248277	-905822.228865	6.119873e+06	4714.870094
2	NO ADDRESS	53.310623	-6.239885	-905222.228865	6.119873e+06	4676.537180
3	NO ADDRESS	53.312190	-6.231491	-904622.228865	6.119873e+06	4714.870094
4	NO ADDRESS	53.313756	-6.223097	-904022.228865	6.119873e+06	4828.043082
5	NO ADDRESS	53.307919	-6.279915	-907922.228865	6.120393e+06	4956.813493
6	NO ADDRESS	53.309488	-6.271524	-907322.228865	6.120393e+06	4657.252409
7	NO ADDRESS	53.311057	-6.263133	-906722.228865	6.120393e+06	4419.275959
8	NO ADDRESS	53.312625	-6.254741	-906122.228865	6.120393e+06	4253.234064
9	NO ADDRESS	53.314193	-6.246348	-905522.228865	6.120393e+06	4167.733197

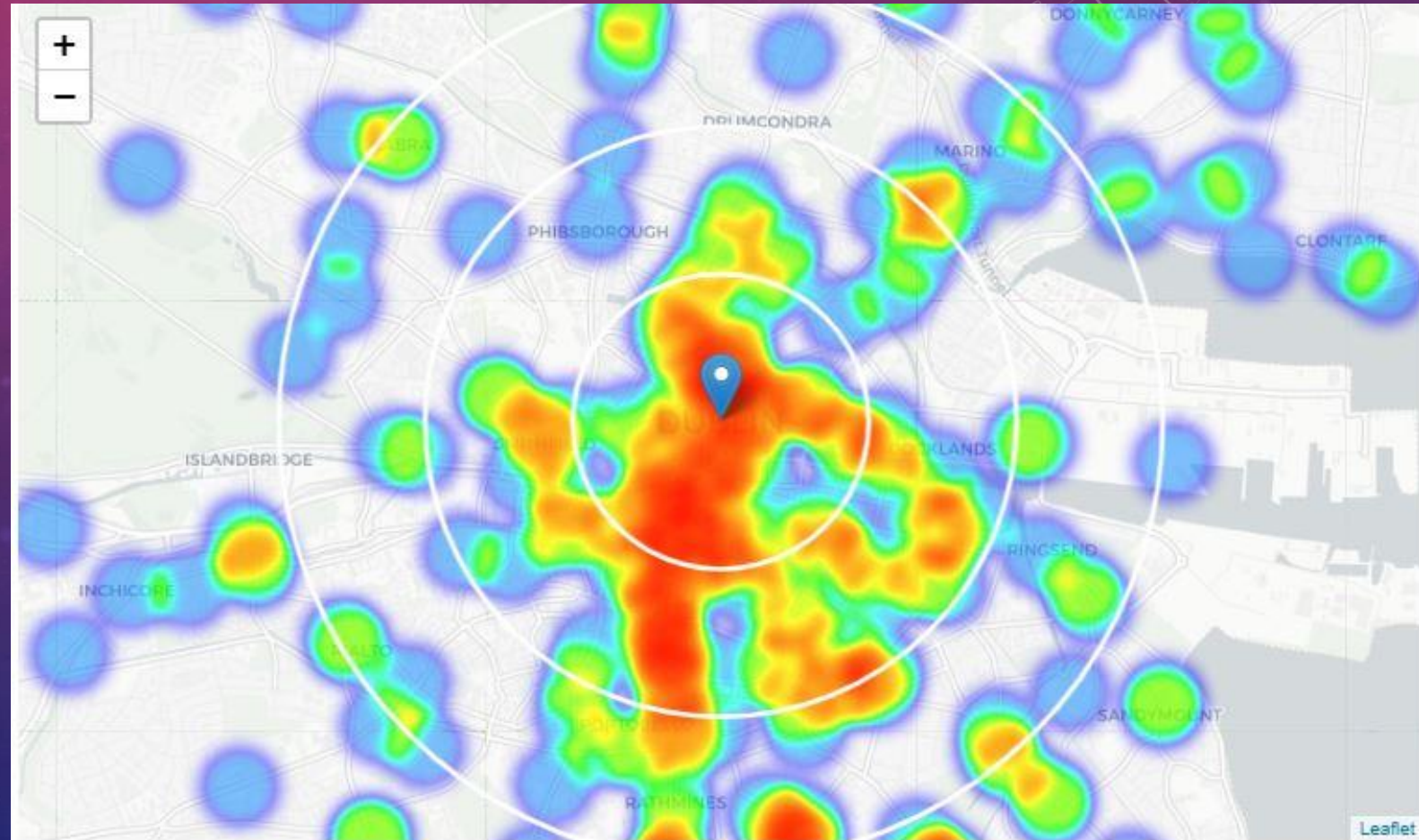
RESTAURANTS

After obtaining latitudes and longitudes, go over these neighborhood locations and get nearby restaurants. Also, maintain a dictionary of all-founded restaurants (Chinese and others)



IDEAL LOCATION

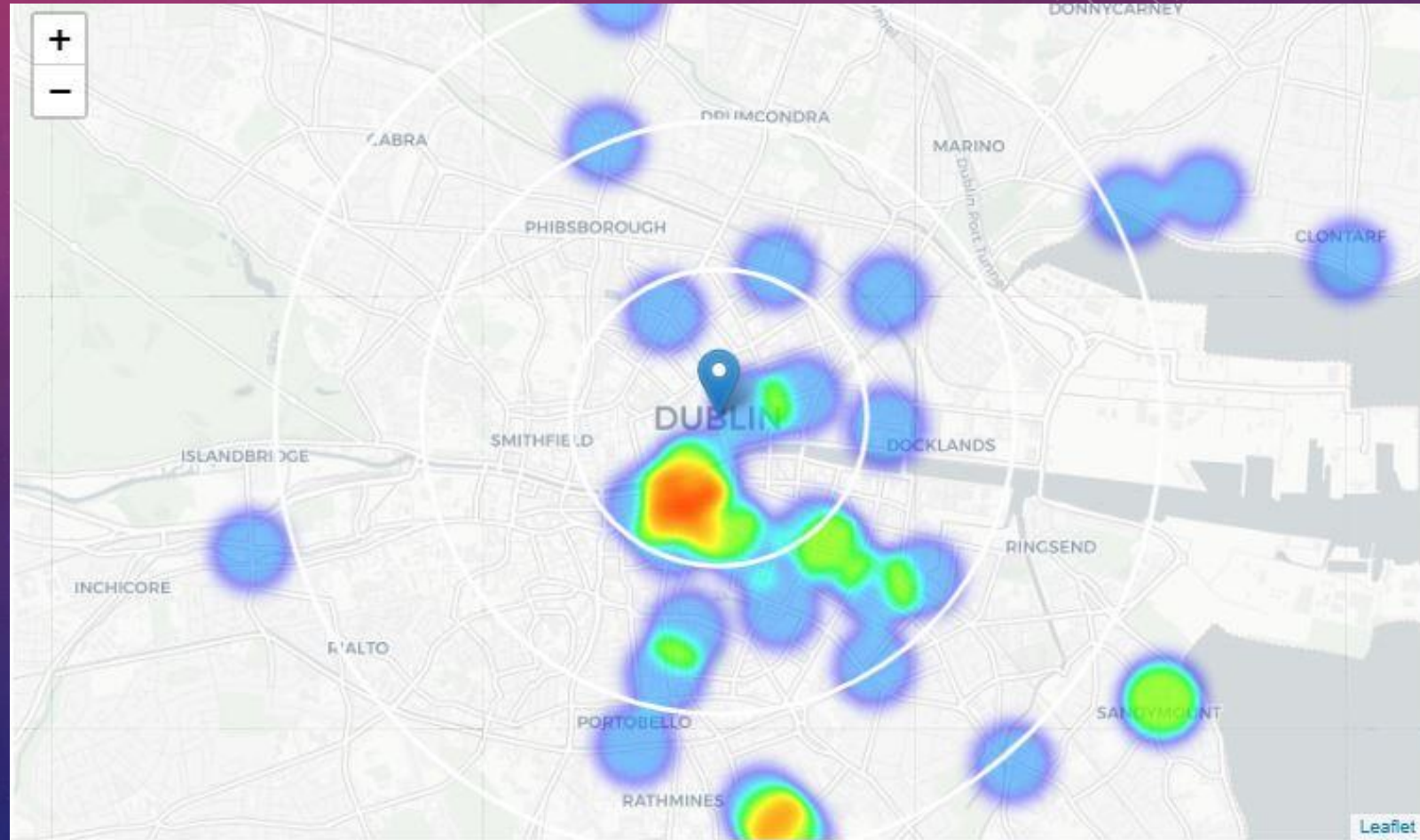
Heat map showing density of restaurants helps to extract valuable information. Circular rings are incorporated to indicate distance of 1km, 2km and 3km from N Earl St.



IDEAL LOCATION FOR CHINESE RESTAURANTS

It is not so dense, which indicates that Chinese restaurants represent a subset of approx. 10% of all restaurants in Dublin

Note: Higher density can be seen directly south of N Earl St.



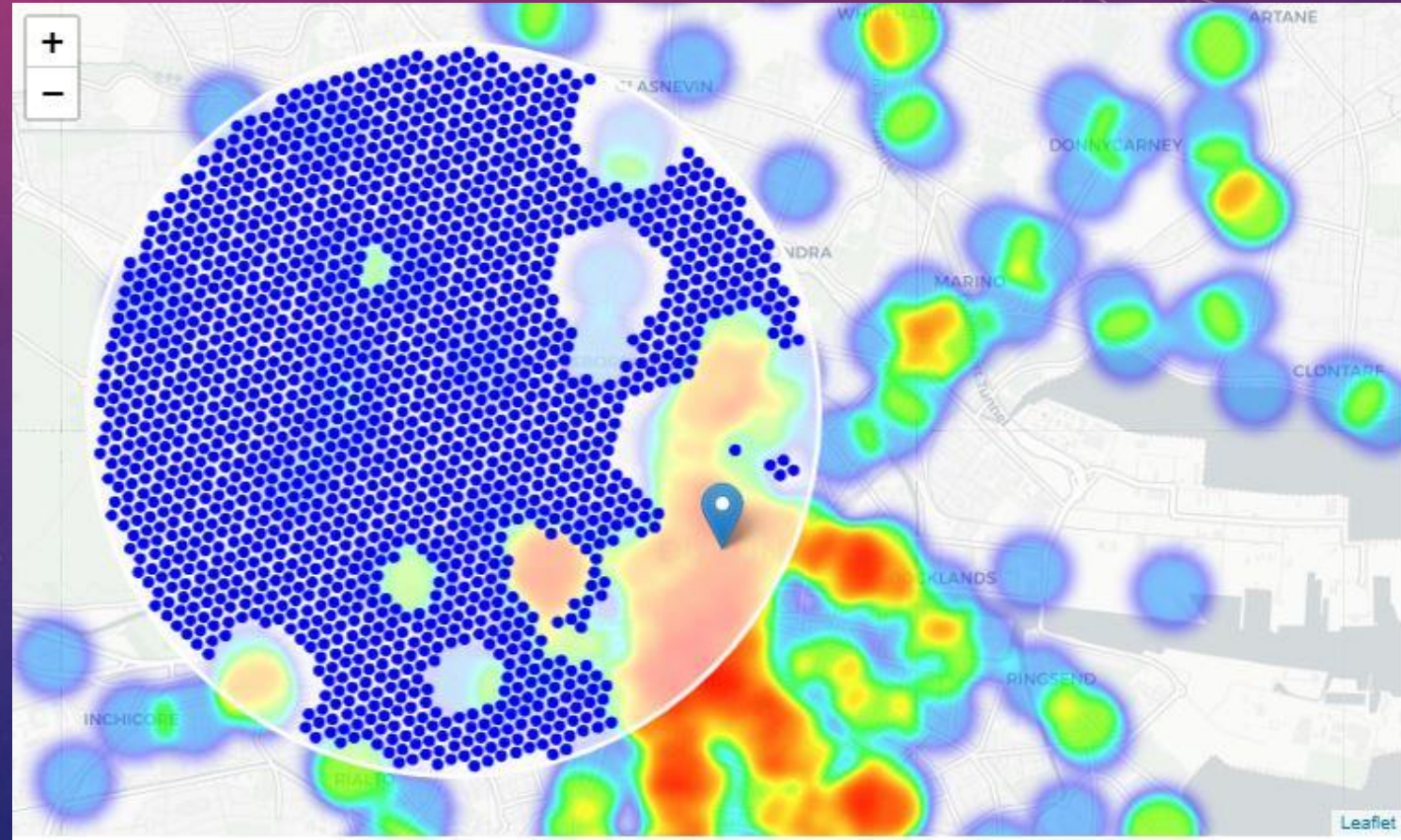
INTERESTED AREA

Narrowing down the search



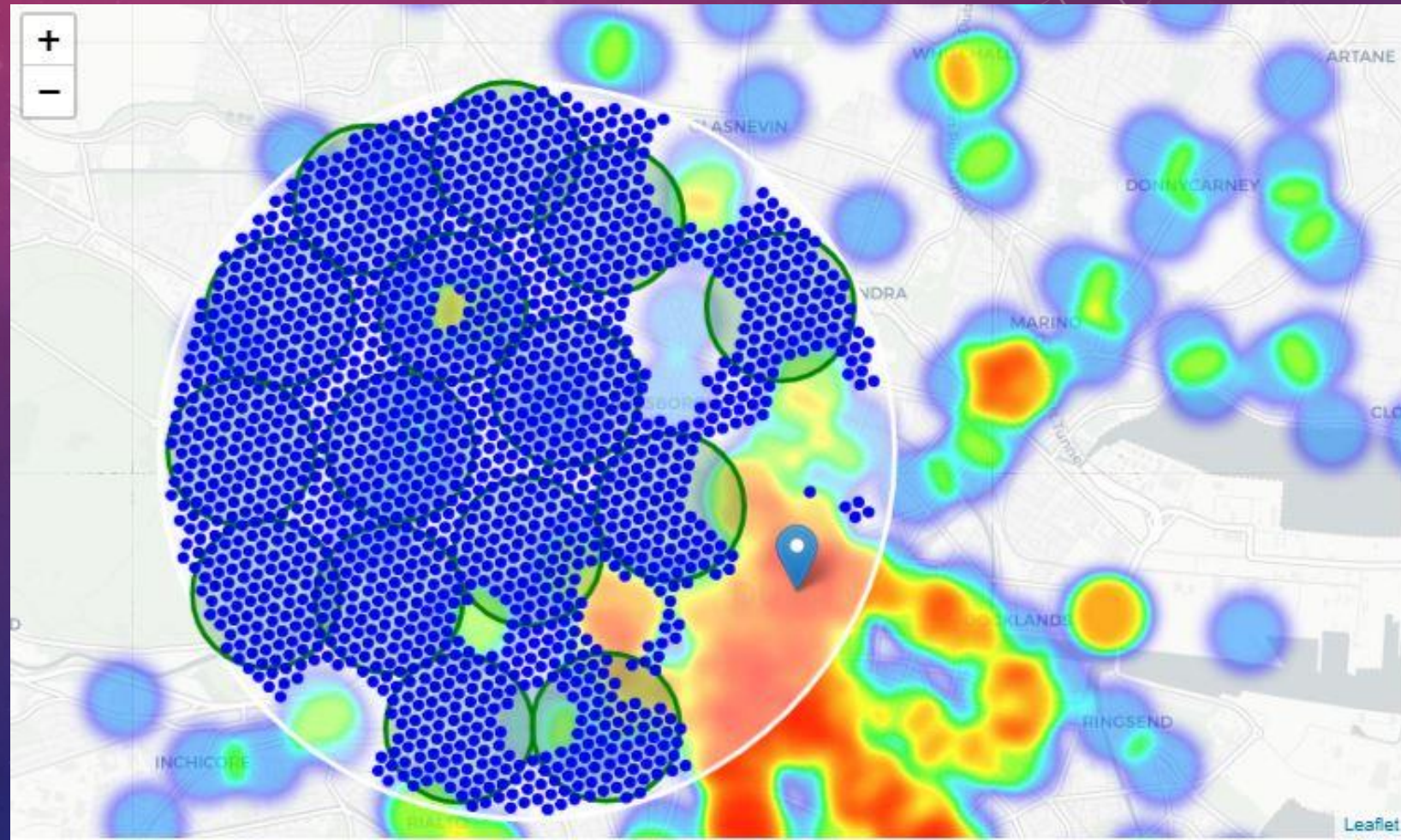
Search narrows down to:

- Locations of no more than 2 restaurants in radius of 250 m : **1879**
- No Chinese restaurants in radius of 400 m : **1869**
- Location with Both conditions: **1715**



CLUSTERING

Create centers of zones containing good locations. They will give the final result of the analysis



CONCLUSION

Result of all this is 15 zones containing largest number of potential new restaurant locations based on distance of existing venues. (both, Chinese and others)

Final decision on optimal location will be based on the characteristics of neighborhoods and locations in every recommended zone. Also, considering attractiveness of each location (proximity of park or other things), level of noise, real estate availability, prices, etc.



THANK YOU!

DHRUV PANGHAL