

Exploring and Clustering Asian Restaurants in Austin (Data)

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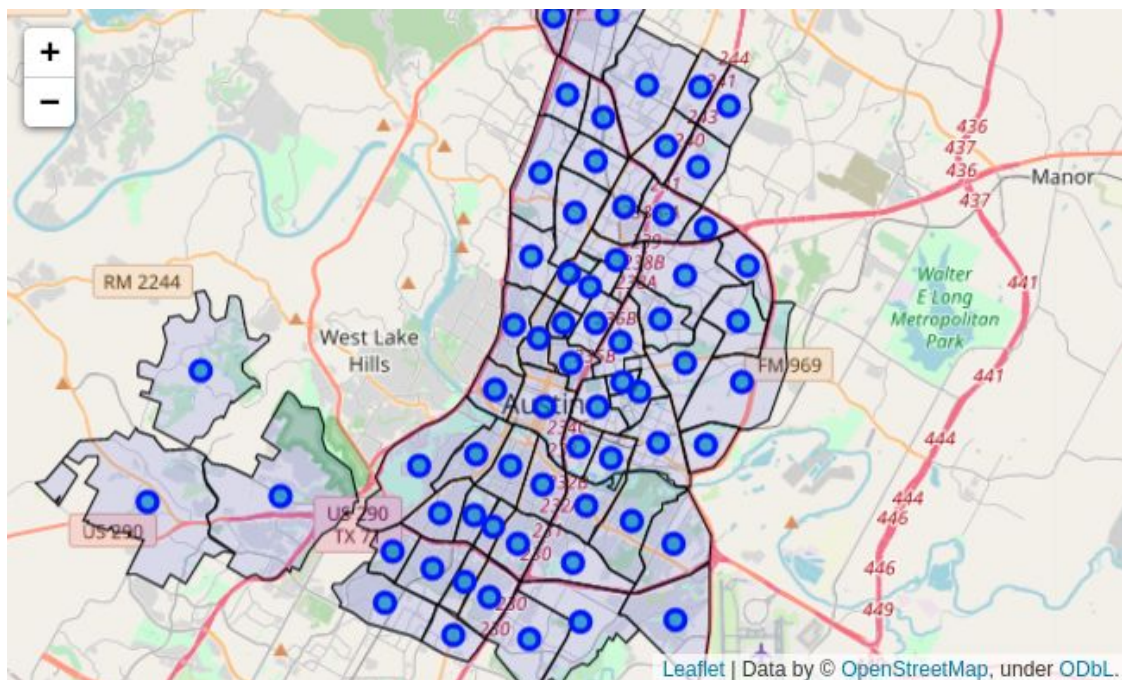
To review the Introduction/Business Problem part:

<https://github.com/Andersen1997/Applied-Data-Science-Capstone-with-Python/blob/master/Week4-Introduction-Business-Problem-Andersen-Lin.pdf>

To address the problem, below is a list of data we need for further analysis:

1. To present users with an interactive map, we need folium to render a map and allow us to put additional information

An example of a rendered map by folium:



2. To localize Austin on the map, we need geopy to get the geographic coordinate of Austin
3. To assist in finding a location to open an Asian restaurant from a neighborhood basis. We need a GeoJSON file [1] that gives us the coordinates of boundaries of neighborhoods in Austin

An example of part of the cleaned data from a GeoJSON file:

	Neighborhood	Latitude	Longitude
0	Johnston Terrace	30.258532	-97.684605
1	Bouldin	30.251880	-97.755556
2	MLK 183	30.278141	-97.671725
3	Zilker	30.255278	-97.768350
4	Crestview	30.346569	-97.725053
5	Onion Creek	30.121934	-97.791569

4. To clearly display the number of existing Asian restaurants in each neighborhood. We need folium to draw choropleth maps
5. To get a list of existing Asian restaurants in Austin [2], we need Foursquare API to explore restaurants based on given locations

An example of part of the cleaned data returned by FourSquare API:

	Neighborhood	Number of Asian Restaurants
0	Bouldin	15
1	Brentwood	6
2	Central East Austin	9
3	Chestnut	1
4	Coronado Hills	1
5	Crestview	3

References:

- [1]. Austin Travis TX US Neighborhoods, OpenDataSoft. Retrieved from:
<https://public.opendatasoft.com/explore/dataset/zillow-neighborhoods/export/?refine.state=TX&refine.county=Travis&refine.city=Austin>
- [2]. Queried Asian Restaurant Recommendations within 1000 Meters of Each Neighborhood in Austin, FourSquare API. Retrieved from:
<https://developer.foursquare.com/docs/api-reference/venues/explore/>