

COURSERA Capstone Project

The Battle of Neighborhoods

9 de abril de 2020

Introduction

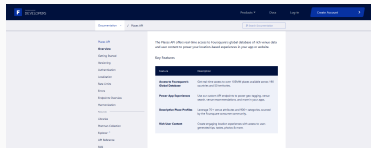
Viña del Mar and Valparaíso, both cities are neighbors and share a variety of gastronomic option in the opinion of people. If you ask people on vacation where they find the best restaurants, you'll have an overwhelming number of different answers, so maybe it's time to put the perception away and do an analysis of ratings and varieties of places where you can eat awesome food in both cities.



Data Source

Data Source i

This analysis was gather from Foursquare's API and geocoder from Geopy. The endpoints used was "venues-explore" and "venues-details"



Methodology - Gathering and Cleaning Data

The first stage was get the coordinate of each city. To do this geocoder from Geopy was used using as address:

- city1 = 'Valparaíso, Chile'
- city2 = 'Viña del mar, Chile'

Endpoints “Venues - Explorer” and “Venue - Details” from Foursquare’s API was used to gather the data, using coordinates of the cities as center with a radius of 3km. The details of each venue was gather with its Foursquare id.

Methodology - Cleaning Data i

Cleaning venues data was done by means of category filtering, this was done using some keywords that represent food places.

```
# define search values
searchValues = ['Restaurant', 'Bagel', 'Beer', 'Bar', 'Breakfast', 'Brewery', 'Burger', 'Coffee', 'Cupcake', 'Dessert', 'Diner', 'Launch', 'Pizza', 'Pub', 'Sandwich', 'Hot Dog', 'Ice Cream', 'Steakhouse']
foodVenues = venuesVinaValpo[venuesVinaValpo['Venue Category'].str.contains('|'.join(searchValues), regex = True)]
foodVenues.reset_index(drop = True, inplace = True)
print(foodVenues.shape)
print('Existence of Null values: {}'.format(foodVenues.isna().any()))
foodVenues.tail(50)
```


Methodology - Cleaning Data ii

The resulting DataFrame after filtering and gathering rating by id:

	City	City Latitude	City Longitude	id	Venue	Venue Latitude	Venue Longitude	Venue Category	Rating
0	Valparaíso	-33.045846	-71.619675	54136e12498e5447674366c9	Hotzenplotz	-33.048339	-71.622510	German Restaurant	9.1
1	Valparaíso	-33.045846	-71.619675	4b61eaf6f964a5202a2b2ae3	Bogarín	-33.046735	-71.619637	Sandwich Place	8.6
2	Valparaíso	-33.045846	-71.619675	570bcfb2498eb339ee9d9d95	Sazón Nazca	-33.046749	-71.616066	Peruvian Restaurant	8.9
3	Valparaíso	-33.045846	-71.619675	54cd707f498e0e083b18ba42	Habrakadabra Sabores	-33.048186	-71.615182	Pizza Place	8.7
4	Valparaíso	-33.045846	-71.619675	5155d374e4b0ec92c7aa4946	Espíritu Santo	-33.048899	-71.622355	Restaurant	8.5

Analysis

For the scope of this analysis, all the food places rating equal and over 7.0 in a scale from 1 to 10, was considered as a good place to eat, and used as input.

Results

Results i

Heat Maps with good places to eat in Valparaíso and Viña del Mar

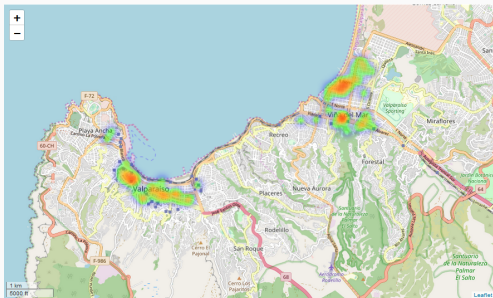
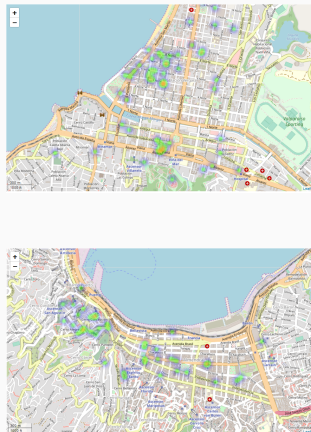


Figura 1: Both Cities - Food Places rating equal or over 7.0



Results ii

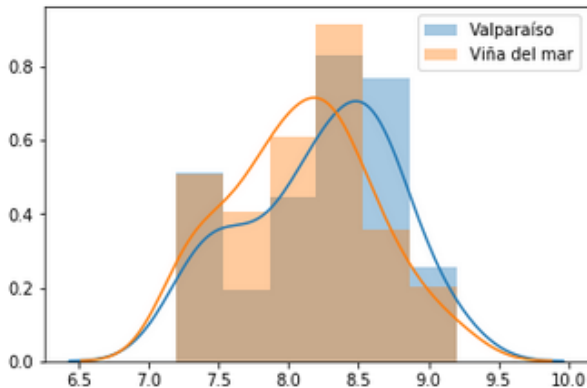


Figura 2: distribution of ratings over 7.0 per city

Results iii

	index	City	Venue	Venue Latitude	Venue Longitude	Venue Category	Rating
0	53	Viña del mar	helados Coletti	-33.015976	-71.553024	Ice Cream Shop	9.2
1	58	Viña del mar	Don Vito e Zanoni	-33.014724	-71.554099	Italian Restaurant	9.2
2	19	Valparaíso	La Dulcería	-33.042442	-71.630630	Dessert Shop	9.2
3	9	Valparaíso	Malandrino	-33.043878	-71.628771	Pizza Place	9.1
4	0	Valparaíso	Hotzenplotz	-33.048339	-71.622510	German Restaurant	9.1
5	55	Viña del mar	Pizzeria Monte Amiata	-33.016756	-71.554636	Italian Restaurant	9.0
6	62	Viña del mar	Glasgow Pub	-33.015129	-71.553750	Beer Garden	8.9
7	2	Valparaíso	Sazón Nazca	-33.046749	-71.616066	Peruvian Restaurant	8.9
8	54	Viña del mar	San Romano	-33.017734	-71.555488	Pizza Place	8.8
9	18	Valparaíso	Brecon's	-33.041745	-71.628720	Pub	8.8

Figura 3: Overall Top 10 Place to Eat

Conclusion

Conclusions i

None of both cities is an absolute winner in this analysis. This is because, Valparaíso present food places slightly better rank than Viña del mar, meanwhile viña del mar offer more places and also more variety (different kinds of place), and both cities have five places between the top ten. In conclusion both cities have attractive gastronomy if you are interested only in high rating food and don't want spend much time walking around, maybe is a good option to go to Valparaíso Cerro Concepción area. On the other hand, if you want quality in a much wider area, perhaps Viña del Mar area must be the choice.