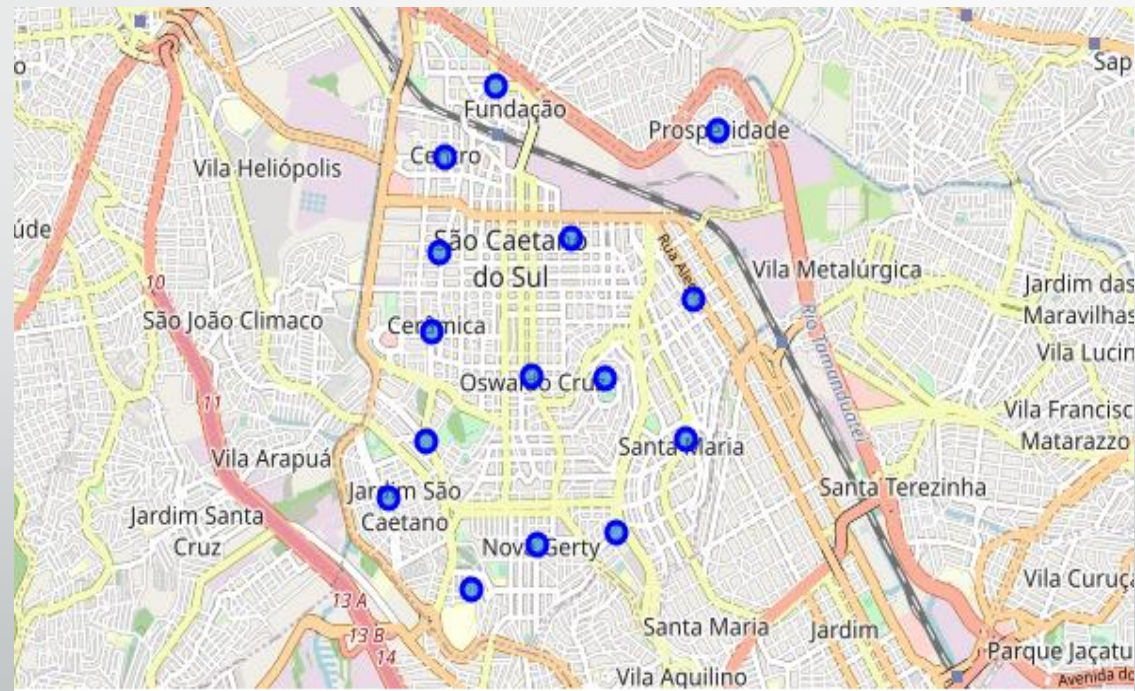# SEARCHING FOR THE BEST NEIGHBORHOODS

Vinicius Lago

Searching for new lands

- We work in a real estate development company in the city of São Caetano do Sul, a small city near São Paulo – Brazil;

- We work in the area of prospecting for new land and our main goal is to find the best potential neighborhoods in São Caetano to launch our new product.

- In our previous surveys, we could identify the following most important characteristics for our potential customers:

  1. **Restaurants;**
  2. **Gyms.**

Data

- To achieve our goal, we will use geolocation of the neighborhoods of São Caetano do Sul.

Data

- To achieve our goal, we will use information of API Foursquare about establishments of neighborhoods.

	Neighborhood	Neighborhood Latitude	Neighborhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Barcelona	-23.622787	-46.552142	Feira Livre	-23.623861	-46.553367	Farmers Market
1	Barcelona	-23.622787	-46.552142	Droga Raia	-23.623749	-46.550823	Pharmacy
2	Barcelona	-23.622787	-46.552142	Old Man Sandwich Shop	-23.624427	-46.554718	Burger Joint
3	Barcelona	-23.622787	-46.552142	Sodiê Doces	-23.626227	-46.553213	Dessert Shop
4	Barcelona	-23.622787	-46.552142	Meet Café	-23.620706	-46.553122	Coffee Shop

Rank of neighborhoods

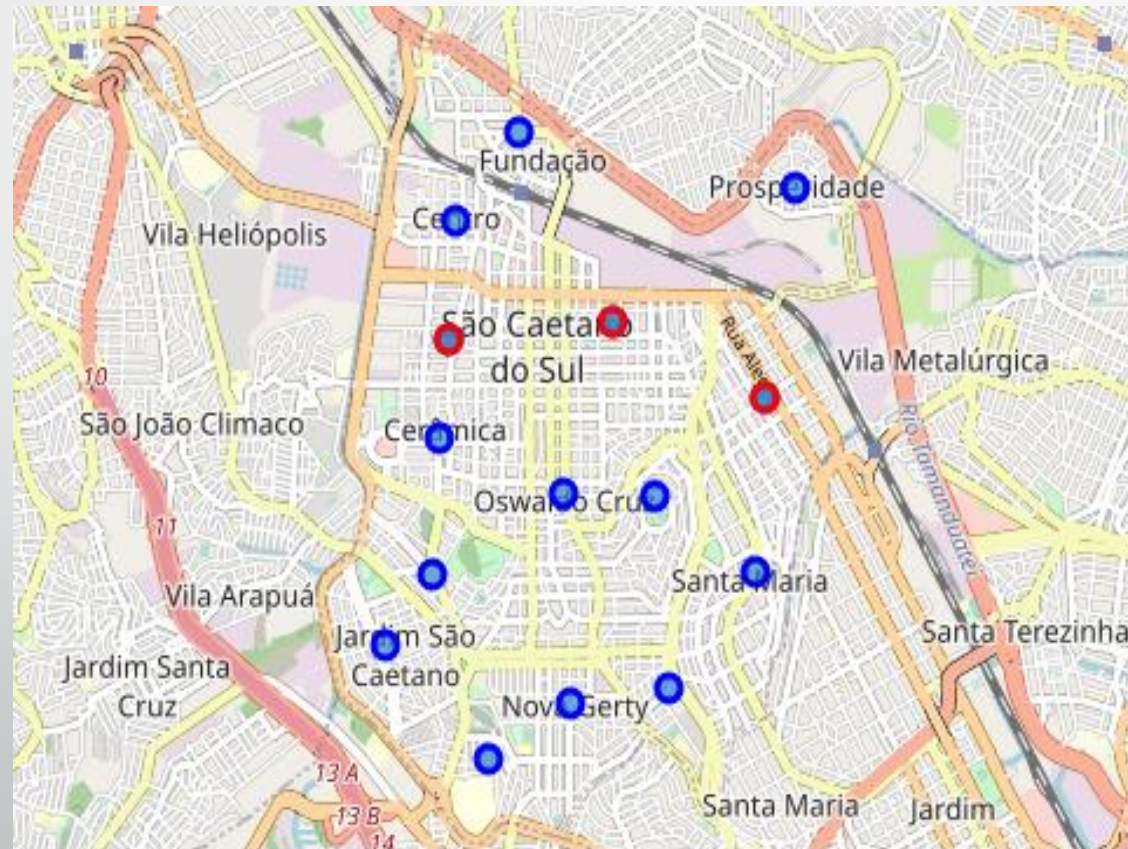- According to our definitions, the three best neighborhoods are:

  1. Santa Paula;
  2. Barcelona;
  3. Santo Antônio.

	Neighborhood	Number of restaurants	Rank Restaurant	Number of gyms	Rank Gym	Final Rank
0	Santa Paula	26.0	1	6.0	1	1.0
1	Barcelona	7.0	3	4.0	2	2.5
2	Santo Antônio	4.0	5	2.0	3	4.0
3	Centro	14.0	2	1.0	11	6.5
4	Cerâmica	6.0	4	1.0	10	7.0
5	São José	3.0	6	1.0	8	7.0
6	Fundação	2.0	10	2.0	7	8.5
7	Olímpico	1.0	12	2.0	5	8.5
8	Osvaldo Cruz	2.0	9	1.0	9	9.0
9	Nova Gerty	1.0	13	2.0	6	9.5
10	Santa Maria	0.0	15	2.0	4	9.5
11	Mauá	3.0	7	0.0	13	10.0
12	Boa Vista	3.0	8	0.0	15	11.5
13	Prosperidade	1.0	11	0.0	12	11.5
14	Jardim São Caetano	1.0	14	0.0	14	14.0

Rank of neighborhoods

- The three best neighborhoods are highlighted (Red circles).

Conclusion

According to results showed in the previous section, we can define the Santa Paula, Barcelona and Santo Antônio as our best neighborhoods to launch our new product.