



Pet Store Location Study

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Introduction



Increase in the number of pets in **Brazil** over the last years.



47,4 % of pets are concentrated in the **southeast** region of Brazil.



> $\frac{1}{4}$ of the brasilian pets were in the state of **São Paulo**.



Data acquisition and cleaning

Neighborhood list with population:

Dados demográficos dos distritos pertencentes às Subprefeituras. Cidade de São Paulo Subprefeituras. 06/01/2021.
https://www.prefeitura.sp.gov.br/cidade/secretarias/subprefeituras/subprefeituras/dados_demograficos/index.php?p=12758

Neighborhood location with geocoder

Foursquare API:

- Pet Stores by neighborhood
- Venues by neighborhood: name, location and category

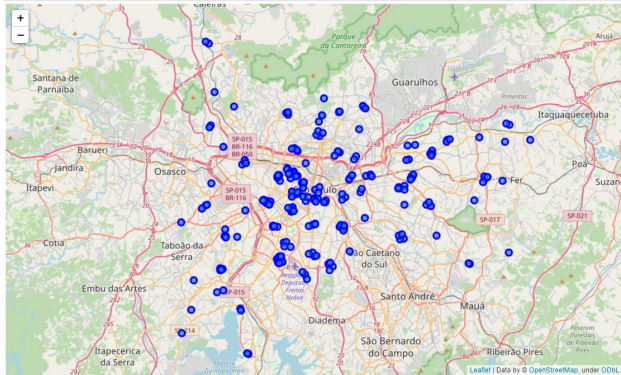


Methodology

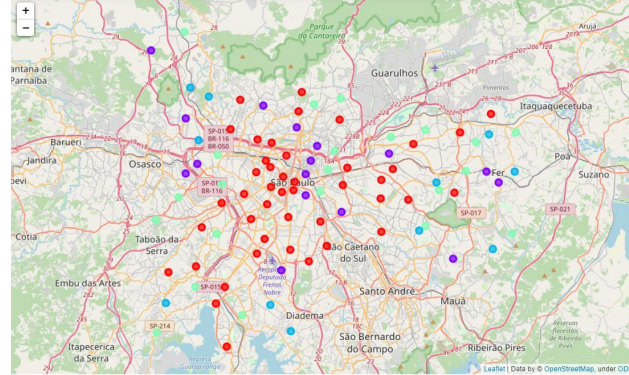
1. Collect the required data
2. Cluster neighborhoods using k-means clustering
3. Select cluster with the most promising areas: highest population, nearest to the city center and highest pet store density
4. Select the most promising neighborhoods: less than 6 km from the city center and less than 4 pet stores in the neighborhood

Results and Discussion

Our analysis shows that although there is a great number of pet stores in São Paulo, there are pockets of low pet store density fairly close to the city center.



Pet Stores in São Paulo



Cluster of neighborhoods



Results and Discussion

Highest concentration of pet stores was detected in the **Cluster 0**



Cluster	Pet Stores	Population (2010)
0	163	4,027,251
1	27	1,212,261
2	7	1,207,612
3	42	2,081,285

4 potential neighborhoods for new pet store locations in São Paulo

Neighborhood	Pet Stores	Population	Distance
Água Rasa	2	84,963	5.42
Bom Retiro	1	33,892	3.00
Sé	3	23,651	0.24
Barra Funda	3	14,383	3.78



Conclusion

1. Objective: Identify São Paulo neighborhoods close to the center with a low number of pet stores in order to aid stakeholders in narrowing down the search for **optimal** location for a **new pet store**
2. **Final decision:** based on specific characteristics of the neighborhoods
 - a. Population of pets in the area,
 - b. Attractiveness of each neighborhood (proximity to parks),
 - c. Levels of noise / proximity to major roads,
 - d. Real estate availability,
 - e. Prices,
 - f. Social and economic dynamics of every neighborhood etc.