

The Battle of Neighborhoods

Coursera Capstone Project

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Introduction

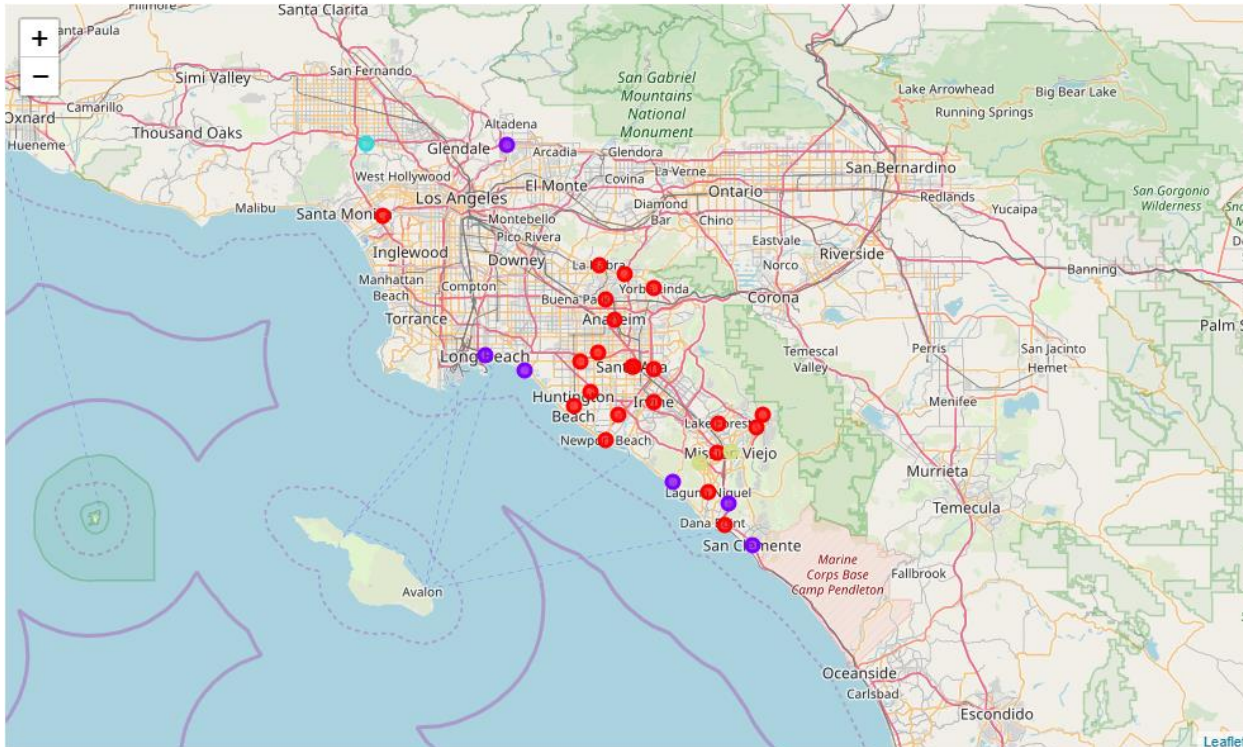
- **Problem:** I need to decide where to live for a job near Irvine, California. I don't know a lot about the area, so would like to use the data to inform my decision. I like performing arts and coffee shops, so would like to live near these types of places.
- The places I will compare are:
 - Long Beach
 - Irvine
 - Costa Mesa
 - Anaheim
 - Lake Forest

Data

- Geocoder – Nominatum
 - I will use this to find the coordinates of each city I will compare
- Foursquare API
 - I will use this to find businesses near each neighborhood, and calculate the concentration of relevant venue types to rank the neighborhoods

Methodology

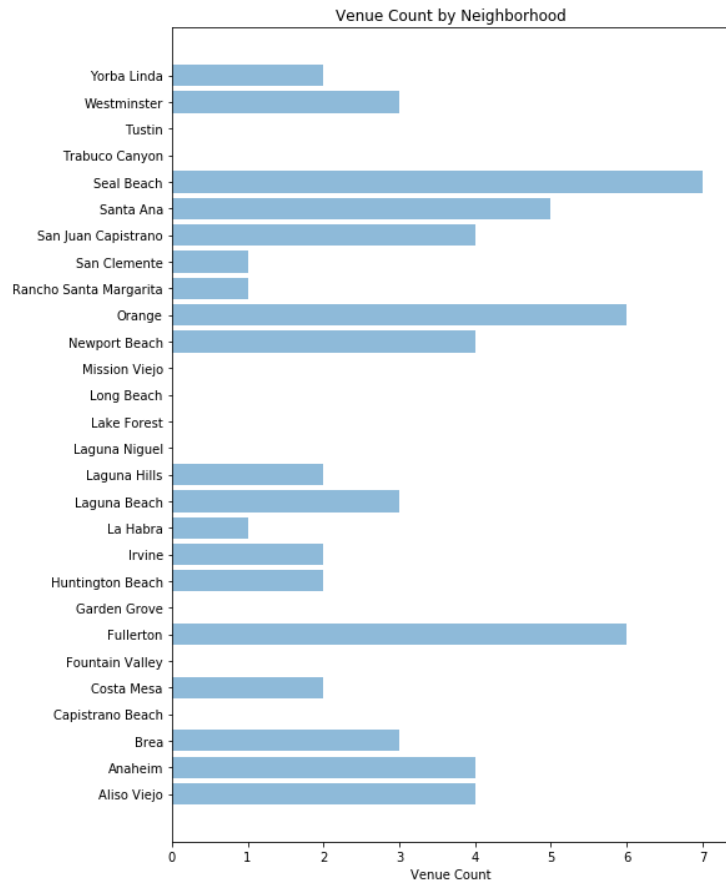
- Clustering based on types of venues leads to 4 clusters.



- Added three reference cities that help us evaluate the clusters: Palms, Pasadena, and Sherman Oaks

Methodology

- To rank within each cluster, counted the types of venues we like to visit



- Coffee Shops
- Cafés
- Theaters
- Concert Halls
- Parks

Results

We now have a dataframe with each city, a cluster category, and a number of attractive venues that we would likely visit

Cluster 0: Like Palms

- Fullerton (6)
- Orange (6)
- Santa Ana (5)
- Newport Beach (4)
- Anaheim (4)

Cluster 1: Like Pasadena

- Long Beach (7)
- Seal Beach (7)
- San Juan Capistrano (4)
- Laguna Beach (3)
- San Clemente (1)

Discussion

- Many cities in Orange County seem similar to each other based on this cluster analysis, devaluing our clustering as a decision mechanism
- Using counts of venues makes sense, because we looked at a fixed radius for each city. Count of venues is a great way to measure our interest and will serve as a ranking tool
- We can't guarantee we will find housing in one specific city, so we will use the list of rankings to inform our discussion with a real estate agent.

Conclusion

- After completing the clustering and ranking exercises, we are now prepared to move to a new city for this job, and also have a list of popular venues to visit. This increased my confidence in moving, and now instead of anxious, I am excited to see a new part of California.
- Once we have settled in, next analysis projects could include using Foursquare API again to rank local restaurants in the order that we should try them.