## The Battle of the Neighborhoods: San Francisco

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#### Finding the Best Neighborhood for Renters

- San Francisco is ranked as one of the best cities in which to find a job;
   however, it is also one of the most expensive cities in the US
- An ideal San Francisco neighborhood for renters would be one that has both a low average monthly rent and as many popular venues as a more expensive neighborhood
- Anyone looking to rent in San Francisco would be interested in the results

#### Data

- Average monthly rent by neighborhood in San Francisco, CA, web scraped from RENTCafe's Rental Market Trends in San Francisco, CA
- 79 neighborhoods after duplicates are dropped
- Some neighborhood names are changed to more common names or to nearby landmarks so GeoPy returns the correct coordinates for each neighborhood; after the coordinates are received, they are changed back to their original names
- Foursquare API used to get popular venues based on coordinates

### Ten Cheapest Neighborhoods

	Neighborhood	Average Rent
0	Treasure Island	\$2,616
1	Van Ness - Civic Center	\$2,944
2	Tenderloin	\$2,944
3	Downtown District 8 - North East	\$2,956
4	Marina	\$2,974
5	Hayes Valley	\$2,983
6	Russian Hill	\$2,983
7	Nob Hill	\$2,996
8	Western Addition	\$3,030
9	Bernal Heights	\$3,061

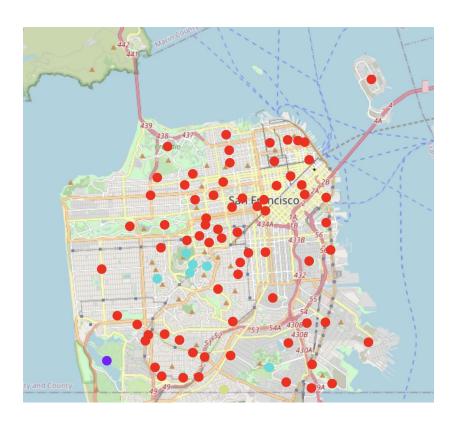
#### Neighborhoods with the Most Venues Overall (capped at 100)

Neighborhood	
Yerba Buena	100
Cow Hollow	100
Downtown District 8 - North East	100
Tenderloin	100
Sunnyside	100
Hayes Valley	100
South Beach	100
Inner Mission	100
Marina	100
Telegraph Hill	99

#### Neighborhoods with the Most Venue Categories

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Neighborhood	
Sunnyside	68
Inner Mission	68
Cow Hollow	66
Marina	66
South of Market	65
Hayes Valley	63
Yerba Buena	62
Alamo Square	62
Van Ness - Civic Center	60
Telegraph Hill	59



#### k-Means Clustering of San Francisco

- Four clusters
- Clustered by top most common venues
- **1st Cluster (red)**: largest; neighborhoods are close enough that the 500m radius may overlap, and venues are shared, leading to homogeneity
- **2nd Cluster (purple)**: contains only Lake Shore, because the only venue there is the lake
- 3rd Cluster (turquoise): most common venues are trails/parks and other outdoor venues
- **4th Cluster (chartreuse)**: contains only Crocker Amazon, because its only two venues are a liquor store and a dog run

# The Most Desirable Neighborhood for Renters: Marina

- One of the ten cheapest neighborhoods
- One of the neighborhoods that has at least 100 venues within 500m
- Second-highest amount of unique venue types, making it one of the neighborhoods with the most diverse venues

