

Find a new work place

Finding a new office during the COVID-19 pandemic

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- **The pandemic has changed our work place:**
 - Working from home has become the new normal
 - Work places and locations should be just as flexible

The only question is: where should you go?

Data

- **Base City: Oakland, CA [A]**
- **Cities of interest [B]:**
 - San Francisco, CA
 - Portland, OR
 - Seattle, WA
- **Preferences for venues[C]**

Venue is provided by Foursquare: foursquare.com

Methodology

- **To simplify and generalization:**
 - Map 135 venue categories → 28 generic categories
- **Compare base city to cities of interest:**
 - Cosine similarity

$$\text{Similarity} = \frac{\langle w^*A | w^*B \rangle}{(\|w^*A\| \|w^*B\|)}$$

Explore the city

City	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Oakland, California	Bar	Sandwich Place	Chinese Restaurant	Clothing Store	Wine Bar	Vietnamese Restaurant	Vegetarian / Vegan Restaurant	Japanese Restaurant	Indian Restaurant	Dim Sum Restaurant
Portland, Oregon	Hotel	Coffee Shop	Restaurant	Food Truck	Sandwich Place	Park	Food Court	Jewelry Store	Burger Joint	Yoga Studio
San Francisco, California	Coffee Shop	Café	Hotel	Park	Theater	Cocktail Bar	French Restaurant	Wine Bar	Bakery	Poke Place
Seattle, Washington	Coffee Shop	Hotel	Cocktail Bar	Café	Japanese Restaurant	Italian Restaurant	Sandwich Place	Park	Mexican Restaurant	Burger Joint

Generalize

City	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Oakland, California	Restaurant	Bar	Cafe	Hobby	Clothing Store	Arts Venue	Arts venue	Groceries	Cupcake Shop	Sporting Goods Shop
Portland, Oregon	Restaurant	Hotel	Cafe	Sightseeing	Bar	Hobby	Clothing Store	Jewelry Store	Sporting Goods Shop	Arts Venue
San Francisco, California	Restaurant	Cafe	Bar	Hobby	Arts Venue	Sightseeing	Arts venue	Clothing Store	Hotel	Grocery
Seattle, Washington	Restaurant	Cafe	Bar	Sightseeing	Hobby	Hotel	Antique Shop	Arts Venue	Arts venue	Building

Results

City:	Similarity
Portland, Oregon:	0.9327
Seattle, Washington	0.9080
San Francisco, California:	0.8395

Conclusion

- **The most similar to Oakland, Ca is Portland, OR**
- **Future:**
 - Refine mapping between venues and generic venues
 - Refine search to specific areas of cities
 - Get housing area availability
 - Get housing area pricing