

The Battle of the Neighborhoods

Selecting the Best Location for a New, High-End Sushi Restaurant in Houston, TX

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Introduction

Business Question

What is the best location in Houston to open a new, high-end sushi restaurant?

Audience

Restaurateur/entrepreneur looking to expand business into Houston

Success Criteria

Populous, high Median Household Income ZIP code with other entertainment venues but little competition as far as type of cuisine/restaurant



Data

Data Requirements

- ZIP Codes (Harris County Only)
- Area Names
- Median Household Incomes
- Populations
- Longitudes
- Latitudes
- County Names
- Nearby Venues

Data Sources

- Foursquare
- <http://zipatlas.com/us/tx/houston/zip-code-comparison/median-household-income.htm>
- <https://web.har.com/zipcode>



Methodology

Dataset Creation

Scrape and merge 2 datasets which incorporate ZIP codes, Median Household Data, Population, County, Area Name and Location

Data Cleaning and Focus

1. Sort the dataset by Median Household Income, reduce list to Top 30
2. Re-sort the dataset by Population, reduce list of ZIP codes to 20

Foursquare

Pull venue data for selected ZIP codes from Foursquare, merge with dataset



Methodology

Machine Learning

Use K-Means Clustering to Cluster ZIP codes into Tiers

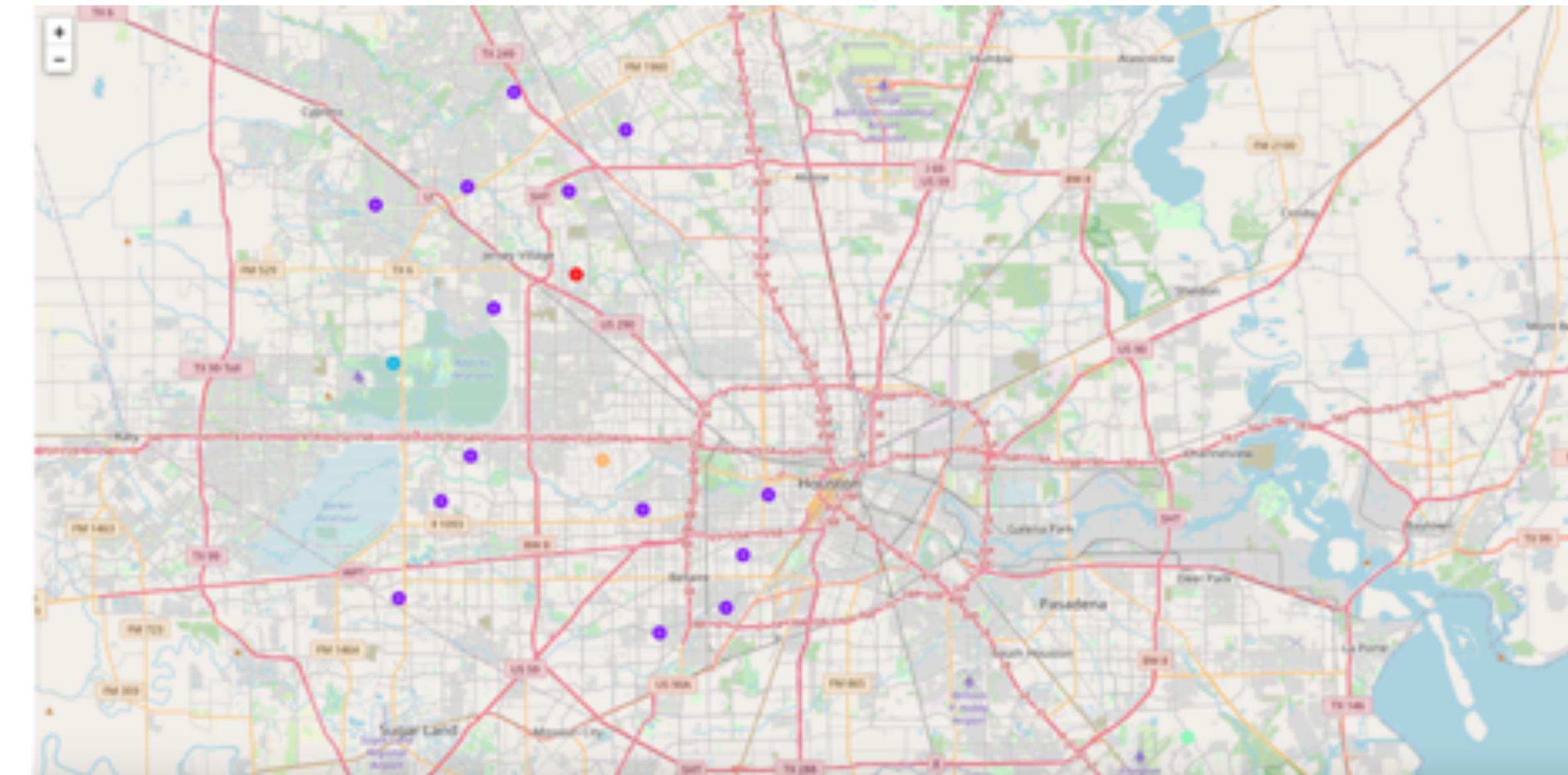
Analyze

Analyze results by cluster



Results

Neighborhood Clustering



Analyze Clusters

- By Average Median Household Income
- By Average Population
- By Nearby Venues



Discussion

Result Review/Analysis

The best Cluster/ZIP code to open a sushi restaurant in Houston is

Cluster 5 (77024 – Bunker Hill/Hedwig Village Area)

This is based on the 3 criteria:

1. High Median Household Income (#1 out of 5 clusters)
2. Area Population (#3 out of 5 clusters)
3. Lack of Competition in the area (Sushi restaurants are not in the top 10 venues in the area)

Additional Observation

For further study, it would be beneficial to know:

1. Restaurant fail rates in these ZIP codes
2. Average property prices in these ZIP codes



Conclusion

Recommendation Summary

- Region: Cluster 5
- Neighborhood Name: Bunker Hill/Hedwig Village
- ZIP Code: 77024
- Median Annual Household Income: \$82,620.00
- Average Population: 32,746
- Top 10 Venues in Area:
 1. Basketball Court
 2. Clothing Store
 3. Vietnamese Restaurant
 4. Gift Shop
 5. Fast Food Restaurant
 6. Food and Drink Shop
 7. Food Truck
 8. French Restaurant
 9. Fried Chicken Joint
 10. Frozen Yogurt Shop



Thank You