

Find A Good Place To Open A New Asian Restaurant In Boston

1. Introduction

This project is for people who plan to open an Asian restaurant in Boston. This first thing to consider is the real estate rent price. We don't want it to be too expensive. The other factor is how many good restaurants there are in this neighborhood. If there are already a few good Asian restaurant in this neighborhood, then the competition will be strong.

2. Data Acquisition

24 neighborhoods in Boston are selected. The average rent is obtained from Zumper website showing 2019 winter information. The restaurant in each neighborhood and ratings are from Foursquare API.

3. Data Analysis

By combining the rent price and restaurant information, we can have a final score for each neighborhood. The detailed calculation method is below.

$\text{RentScore} = (\text{Max} - \text{Current}) / (\text{Max} - \text{Min})$

The good rating for each restaurant is defined by rating equal or higher than 7. It returns a value of 0 (false) or 1 (true). Then I find the number of good rating restaurants in each neighborhood.

$\text{RateScore} = (\text{Max \# of good restaurant} - \text{Current\#}) / (\text{Max} - \text{Min})$

$\text{FinalScore} = \text{RentScore} * 0.6 + \text{RateScore} * 0.4$

4. Results and Discussion

The chart below shows the neighborhoods that have a final score higher than 8 in descending order.

	Neighborhood	2019w	Latitude	Longitude	RentScore	GoodRatingRestaurant	RatingScore	FinalScore
19	Mattapan	1500	42.267566	-71.092427	1.000000	0	1.0	1.000000
18	Hyde Park	1625	42.255654	-71.124496	0.919355	0	1.0	0.951613
0	Roslindale	1700	42.291209	-71.124497	0.870968	0	1.0	0.922581
7	Roxbury	1780	42.324843	-71.095016	0.819355	0	1.0	0.891613
10	East Boston	1800	42.375097	-71.039217	0.806452	0	1.0	0.883871
17	West Roxbury	1810	42.279265	-71.149497	0.800000	0	1.0	0.880000
16	Brighton	1850	42.350097	-71.156442	0.774194	0	1.0	0.864516
20	Dorchester	1875	42.297320	-71.074495	0.758065	0	1.0	0.854839

5. Conclusion

The top three neighborhoods to open a good restaurant is Mattapan, Hyde Park and Roslindale.