

Coursera Applied Data Science Capstone Project: Battle of Neighborhoods

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[GitHub Repository](#)

INTRODUCTION

This project will attempt to answer the question “which group of Cleveland, OH neighborhoods has the best-rated restaurants?” Someone who is moving to Cleveland, OH might be interested to know which side of town has the best restaurants. For people who like to eat out, this knowledge would influence what neighborhood they chose to buy or rent a home.

DATA

Open-source data about the cities in the Cleveland area was found online. Two data sets were used. The first included information about the municipalities in Cuyahoga County, the county in which Cleveland is located. The second data set had the latitudes and longitudes of different US zip codes. Merging these data sets gave me the information I needed to map and cluster the neighborhoods in order to do the analysis.

METHODOLOGY

After cleaning the data and merging the data set into a single, succinct table, I used kMeans clustering to group the Cleveland area into 3 neighborhoods - East, West, and Central. I chose three groups because this is how Cleveland residents talk about the different areas. I then used the FourSquare API to collect information about the restaurants and their user rating within a 5 miles radius of each of the centroids of the clusters. Finally, I performed a simple calculation and comparison to determine the neighborhood with the best average rating for area restaurants.

RESULTS

Average Restaurant Ratings:

West - 7.884

East - 7.748

Central - 7.428

DISCUSSION

My analysis revealed that the Western Cleveland Neighborhoods have restaurants with slightly higher average ratings than the Eastern or Central Cleveland Neighborhoods.

CONCLUSION

The difference in the average restaurant rating in the different neighborhood areas is not large and therefore, if you are moving to Cleveland, I don't think average restaurant rating should be a major contributing factor to where you move!