

Battle of the Neighborhoods Final Report

ANNIE HELMS

Introduction



The client owns a restaurant in the Gourmet Ghetto, Berkeley, CA



Restaurant's success due to: Neighborhood Proximity to university



Client want to expand to a new city



Which neighborhood in Chicago is most similar to the Gourmet Ghetto and close to the University of Illinois at Chicago?

Sources of Data



Foursquare – location data for venues in selected neighborhoods



Geopy library – coordinate data for neighborhoods



City of Chicago – list of Chicago neighborhoods

Methodology



Gather list of Chicago neighborhoods



Use geopy to obtain coordinates for each neighborhood



Plot neighborhoods on map of Chicago with folium library



Add Gourmet Ghetto and associated coordinates to data frame



Make call to Foursquare to obtain venue data

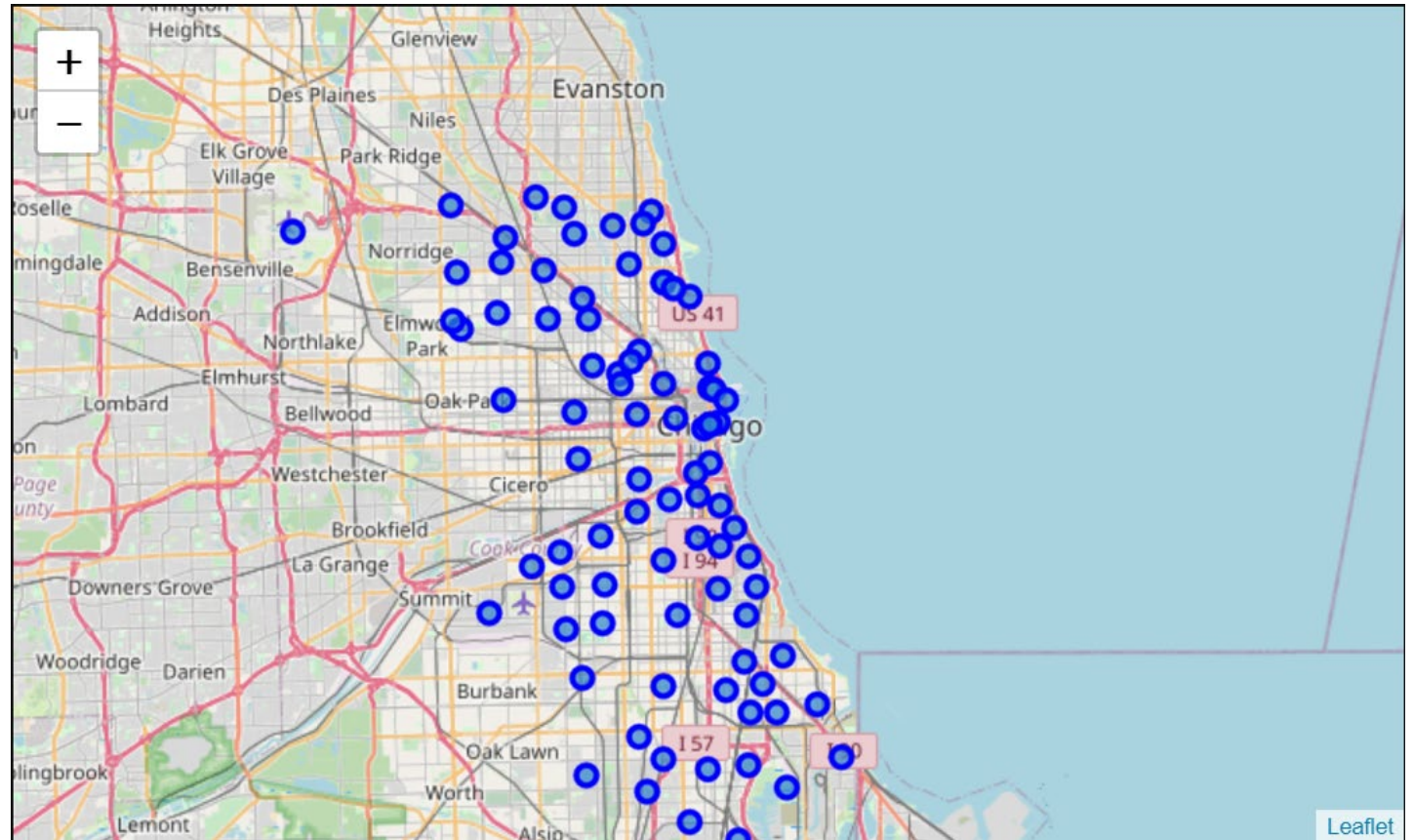


Use k-means clustering to obtain groups of similar neighborhoods



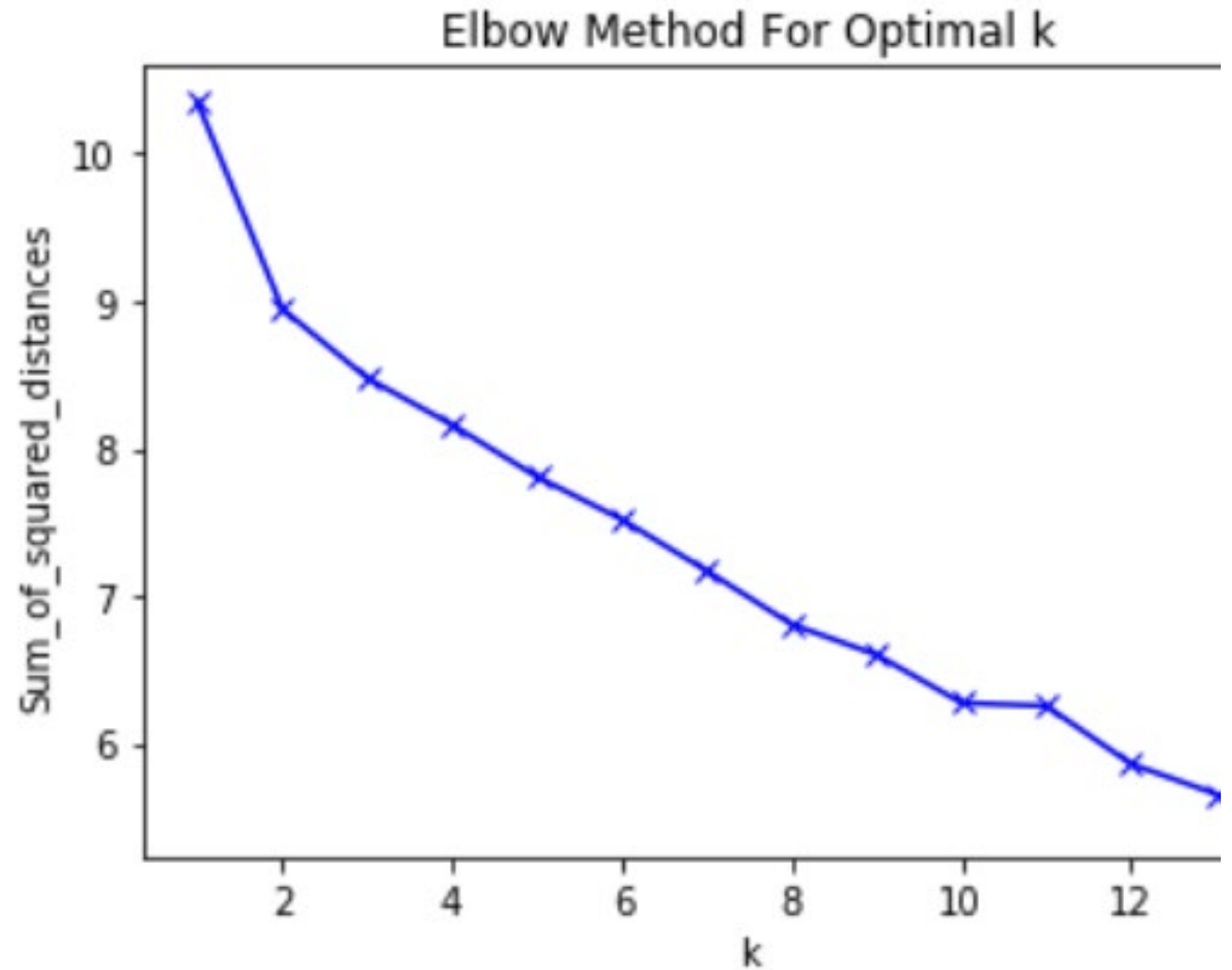
Sort list of Chicago neighborhoods by distance from university

Map of Chicago neighborhoods



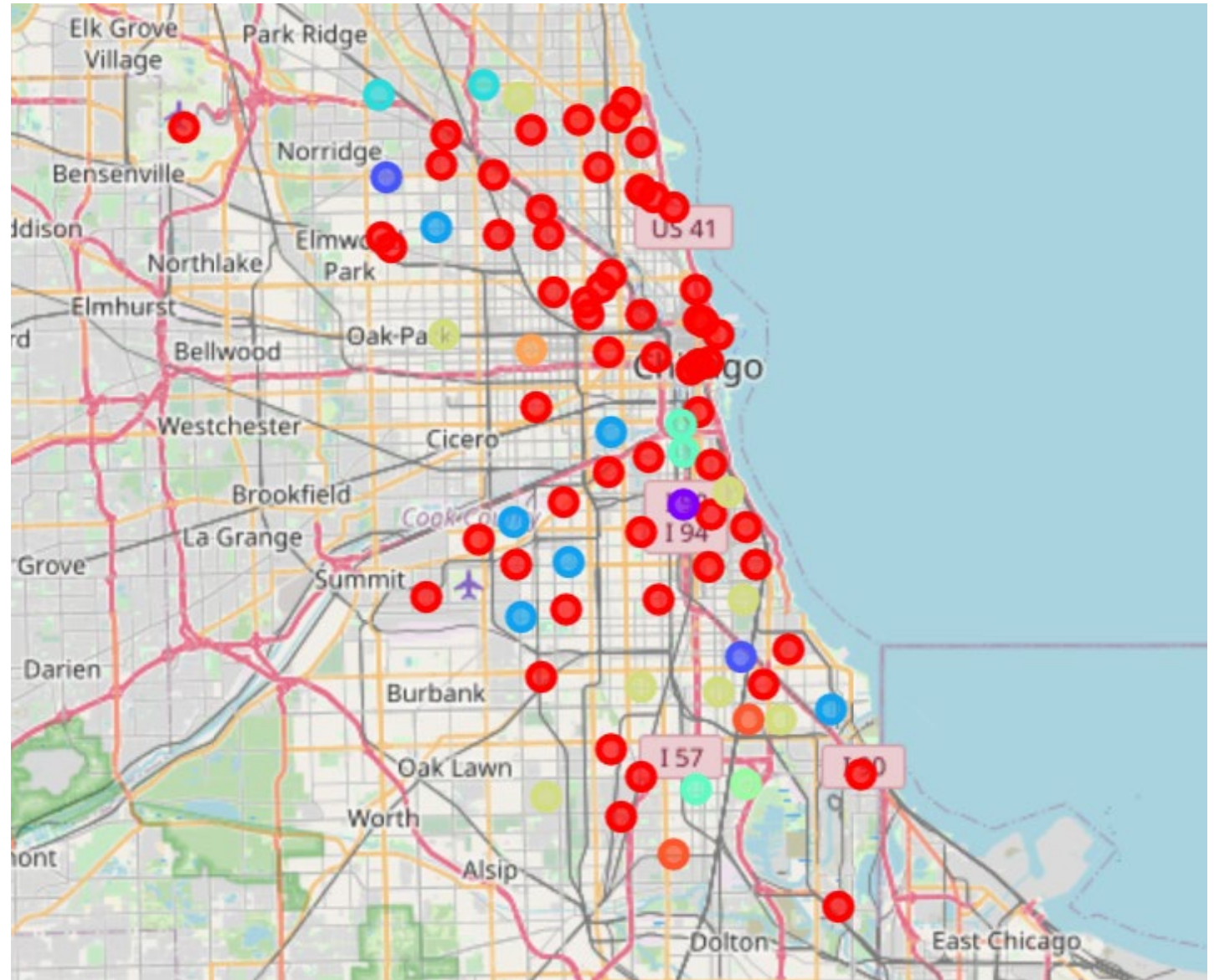
Determine ideal k-value

Based on this plot, a k-value of 10 was selected for the clustering method.



Results

Out of the 88 Chicago neighborhoods, 62 were clustered with the Gourmet Ghetto, here grouped in red.



Neighborhoods
sorted by
distance to
university

| | Neighborhood | Distance from uni | Latitude | Longitude |
|---|----------------|-------------------|-----------|------------|
| 0 | Greektown | 0.009595 | 41.878445 | -87.646932 |
| 1 | Printers Row | 0.020240 | 41.873787 | -87.628900 |
| 2 | East Village | 0.025020 | 41.875562 | -87.624421 |
| 3 | Loop | 0.025020 | 41.875562 | -87.624421 |
| 4 | Little Village | 0.025020 | 41.875562 | -87.624421 |

Discussion

Features of neighborhoods that clustered with the Gourmet Ghetto:

- restaurants,
- bars,
- cultural sites,

Perhaps these neighborhoods are frequented by young professionals

Ideal type of neighborhood for a new restaurant

Conclusion



Greektown is the ideal neighborhood in Chicago



Contains venues that are similar to those of the Gourmet Ghetto



Closest neighborhood to the University of Illinois at Chicago