

World City Classification

20.07.2019

Background

Problem Statement

- Classify cities with a population of at least 100,000 based on the existing food venues in the cities.
- Use the trained classifier to predict class of city of interest.
- Compare city to cities in class and give recommendations on which food venue to open.

Data

- Use demographics data from the demographics year book of the United Nations.
- Find location coordinates with OpenCage API.
- Get food venue information with Foursquare API.
- Train classifier on 500 randomly chosen cities.

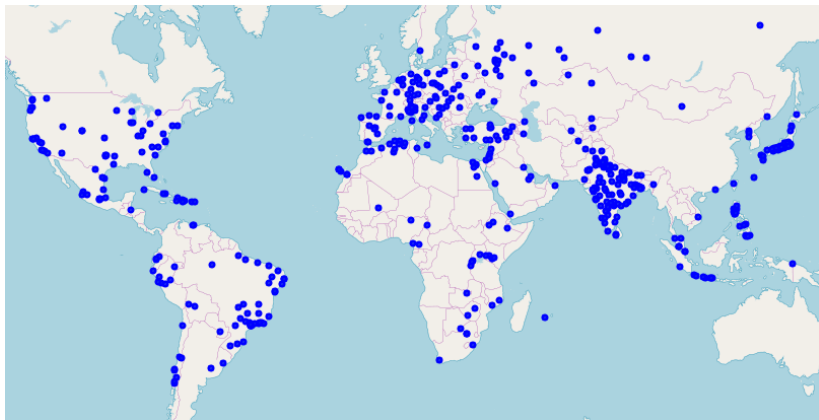


Figure: Chosen Cities

Silhouette Score

Finding the right amount of clusters.

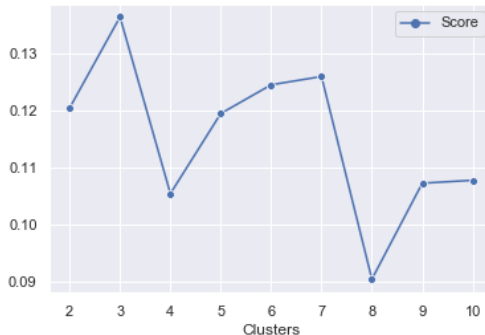


Figure: Silhouette Score

Clustered Cities

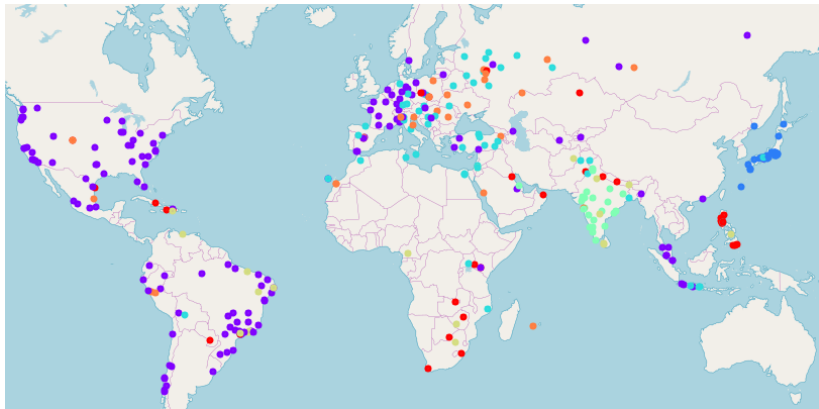


Figure: Clusters

Types of Food Venues

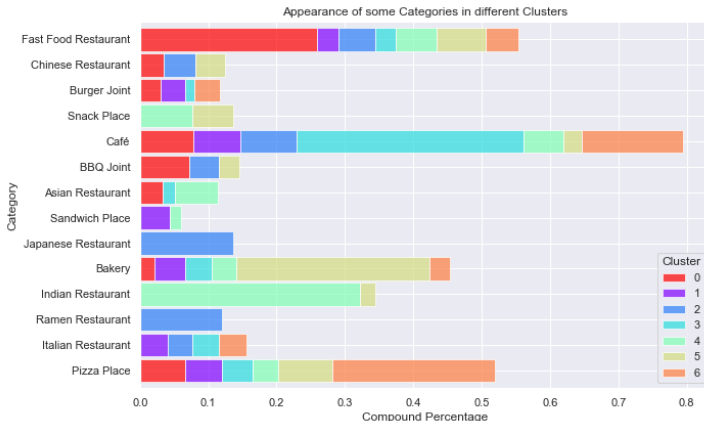


Figure: Venue Distribution

Recommendation for New York

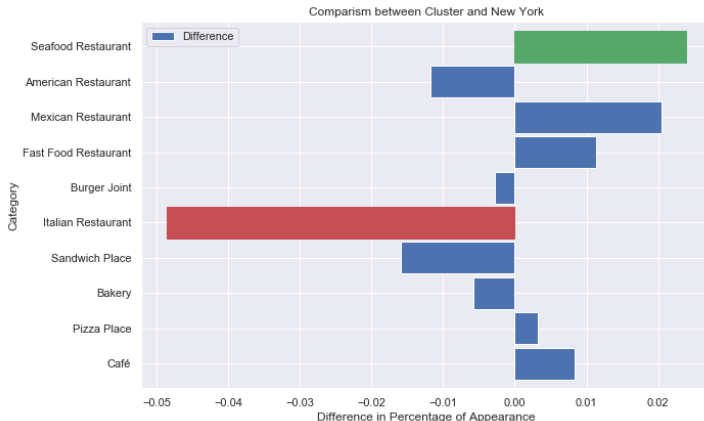


Figure: New York Comparison