Where Are The Optimal Areas In Seattle For A New Restaurant?

1. Problem Description:

   If some one is looking to open a new restaurant, Seattle might be a good choice. Why? According to Google, there are 3,358 restaurants in the Seattle city, a city with around 700000 population. That is about 1 restaurant for every 200 people, meaning there would be plenty of customers for a new restaurant.

   But which areas would be optimal for the new restaurant? Intuitively, it should probably be some where already has lots of restaurants, that way when the customers of other dinners pass by, they would realize there is an new one opening, that could bring in the first batch of customers easily.

   On the other hand, it might be wise to open a new restaurant in a area has fewer existing restaurants and higher population, so that the potential competition would be lower.

   In this project, we will try to find out the answer with machine learning.

2. Data Description:

   The data used in this project are from two sources:

   1. Data that contains each zip codes, neighborhoods, and population within each zip code and neighborhoods. These data is downloaded and scraped from public websites.

   2. Data that contains the venues within the areas of Seattle city. These data is acquired from Foursquare.com using its API.