Impact of Business Info on Restaurant Ratings

Project Overview

Peiying Yu
Peidong He
Siyi Sun

Goal of This Project

- Try to find out the relationship between basic business information and the rating of a restaurant

Data Source

- Yelp and other restaurant websites and other websites
- What features we can get from them:

Users:

- Reviews,
- Friends on yelp,
- Yelp elite or not,
- Wishlist,
- Rating distribution,
- Review votes voted by people.

Restaurant:

- Number of reviews,
- Type,
- Hours,
- Location,
- Price level,
- Basic business info (parking)

Method

- Evaluate the yelp users, including users in the elite program vs not elite program (assumption: they may give different average ratings.)
- Possible predictors: basic business information, frequency of appearance on users' wishlists, seasons, attractiveness to what type of yelp users,etc.
- Making prediction of rating based on regression, nearest neighborhood method/support vector machine
- Use cross validation to evaluate the model.

Expected Results

- For restaurants, give most helpful features that might improve their ratings.

Reference

https://www.yelp.com/

https://www.kaggle.com/adamschroeder/crime-in-new-york-city?scriptVersionId=1420702

https://maps.nyc.gov/crime/