YUM-ME!

Your personal AI concierge... for food!

Michael Lin

Introduction

Looking for a new and tasty restaurant can be a difficult task, there are a lot of tools like Yelp, Zagat, or Eater, but they all involve a lot of work! Wouldn't it be nice if there was an app to simplify this process??

This passion project called YUM-ME! is a **restaurant recommender using machine learning**, it attempts to bridge that gap and provide 3 simple and personalized restaurant recommendations from a user's eating history and reviews.

How YUM-ME! works

EDA	- A machine learning model was trained on a **Yelp dataset** of 6.6 million user reviews from late 2004 to late 2018. - Dataset density was increased by focusing only on restaurants within Arizona and Nevada region, with users with 4+ reviews and restaurants with 10+ reviews.
Model	- Use models based on collaborative filtering and matrix factorization - A base model using the *Alternating Least Squares* algorithm was trained on a dataset of just the mean score (3.68) of review ratings. 9 other recommender models were created and evaluated against the base model using RMSE as the error metric. - The model which produced the best score was ***SVD++*** (user-item collaborative filtering)
Results	Top rated restaurants based on that user's profile are recommended by city

Tools Used: