Predicting the Perfect Neighborhood Fit

Helping people move with confidence

The problem

Moving

Moving is a very stressful time for people and looking for the right apartment or house is extremely important

Unfamiliar Location

How can you determine where you want to live if you have little information about the location or have no availability to visit beforehand

Solution

Using a variety of Machine Learning techniques you could predict which location best fits users needs based on preferences

Data Used

FourSquare API

FourSquare data was used to get the listing of venue by neighborhoods in Brooklyn, NY

Dummy User Data

A fake user listing of top 4 priorities was used to create the user profile

Future State

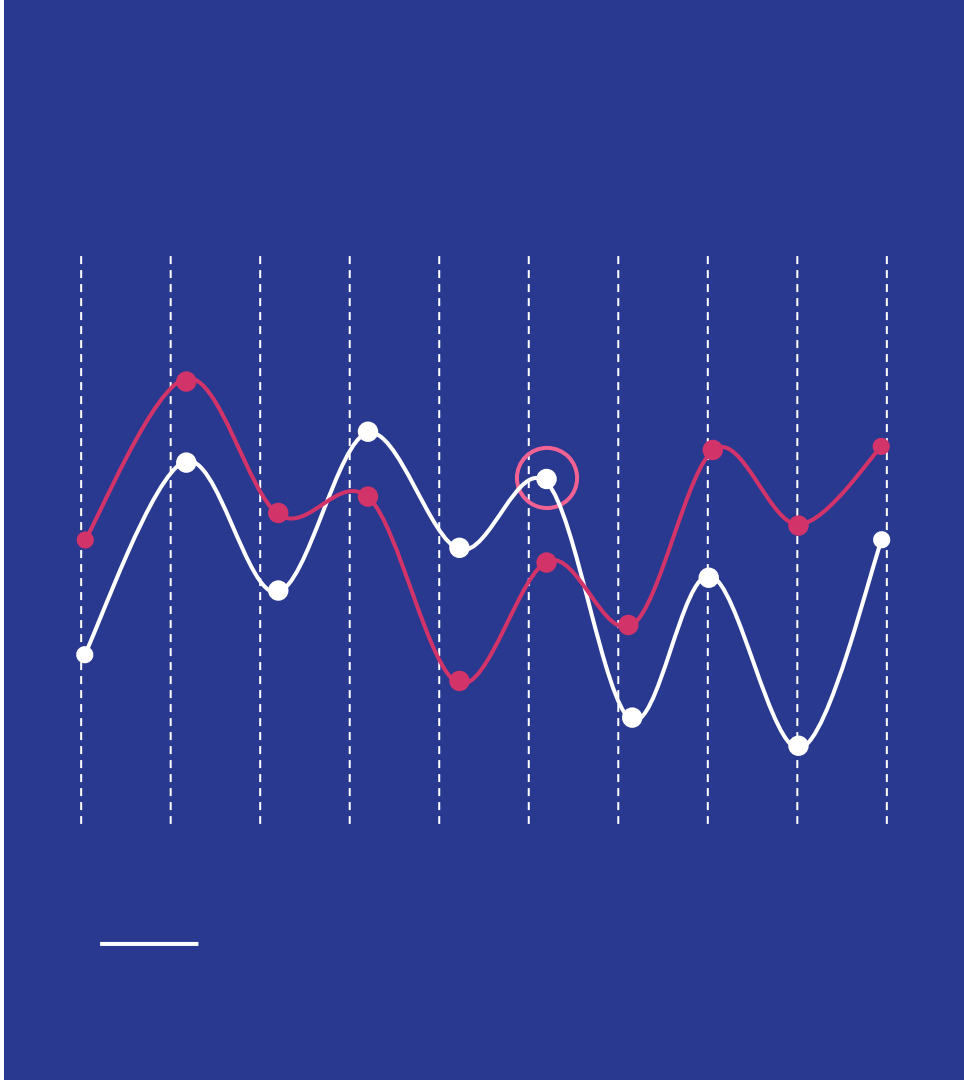
In future iterations a variety of data sources can be used to enhance the predictions

Methodology

Utilizing Machine Learning

- This iteration used Kmeans algorithm as a method of clustering in the study.
  - All neighborhoods in Brooklyn were clustered into 5 similar groups
- The user profile was created to help build a simplistic content-based recommendation engine to help review possible outcomes.
- Matplot lib was useful in visualizing the outputs of some of the data from an intial exploratory perspective

Results



Top 3 Neighborhoods based on User Preferences

1. Bushwick
2. Gerritsen Beach
3. Bedford-Stuyvesant

Future Iterations

Possible Next Version Considerations:

- Residential demographic information
- Expanding model to account for more cities and neighborhoods
- Enriching the neighborhood information (e.g. venue ratings, public services, crime data etc.)
- Pooling all user information to provide collaborative based filtering on top of the initial content based approach and comparing results.