Predicting Ideal Gym and Fitness Studio Locales

Tom Puckette

June 15, 2020

1. **Background & Problem**

Gyms and active lifestyles are growing in popularity as a form of preventative self-care from the many adverse health effects of obesity. Health risk examples linked to obesity include early mortality, certain cancer types, diabetes, various coronary diseases, and stroke. There are also meaningful economic costs associated with obesity; impacting healthcare and transportation industries most significantly. The latest 2019 data from NHANES suggests that nearly 40% of adults are categorized as “obese;” the highest it has ever been. As with most real estate investments, location is paramount. With the required investment to start a Gym affiliate at historical lows, it would be advantageous to accurately predict and identify ideal locations for new Gyms and fitness studios.

Gym owners and aspiring affiliate owners everywhere would welcome the ability to identify optimal Gym locations based on dynamic landscape and social interest variables. Gym franchises, such as Gold’s Gym, Planet Fitness, etc. may also be interested in capitalizing on unrealized ideal locales for their franchisees.

1. **Data Source & Attribute Analysis Overview**

This project aims to recommend the optimal location(s) for a new Gym or Fitness Studio based on collected data primarily from the Foursquare API. Data of interest includes locations of currently established Gyms, some measure of visit frequency (e.g. number of check-ins, unique visitors, etc.), viability of venue reputation based on likes and/or reviews, and analysis of similar or comparable venue category statistics such as lists or trending venue statistics over time. The data will then be cleansed and manipulated into layouts suitable for statistical regression analyses and K-means Clustering.