Predicting the Pattern of College Students in Auburn, AL

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1. Introduction
   1. Background

Auburn, AL is a college town with a sizeable non-student population. However, the small businesses in Auburn still rely heavily on student traffic for their income. Any new small business will need to consider its appeal to students in order to be successful. Auburn is known for its small-town feel despite its growing population. That atmosphere is very important to non-student residents, often being an attraction to incoming professors. If Auburn can maintain its appeal, it can continue to recruit top-notch professors and grow in prominence. Therefore, it is important from an economic development perspective to encourage growth among small businesses, and to do that successfully, planners must consider the behavior of the college students.

* 1. Problem

Prospective small business owners need to know which areas will be heavily trafficked by students. This project aims to point to areas within Auburn that are likely to have higher student volume based on the traffic at existing Auburn venues.

* 1. Interest

Pinpointing areas within Auburn that are likely to have heavy student traffic is an important consideration for anyone looking to open a business in the area.

1. Data
   1. Data Sources

Venue information was pulled from Foursquare’s API. I wanted to incorporate ratings into the analysis but was unable to do this at a reasonable scale due to the API’s data restrictions. I pulled the top venues along with their location and category (eg. Pizza restaurant) for clustering.

* 1. Data Cleaning

Data imported from the Foursquare API is stored in a JSON format. I used the json\_normalize function to flatten the JSON file so I could pull the relevant fields.