Applied Data Science Capstone

Exploring Richmond, Virginia – Case Study for a New Grocery Store

Randy Michaud, June 17, 2020

Richmond, Virginia was incorporated in 1742 and established as a city in 1871. Richmond bears a rich history as one of the largest cities in the commonwealth of Virginia and is the state's capital. The Richmond metro area is one of diversity; a hub of employment opportunities in manufacturing, healthcare, education, and financial sector. The city of Richmond has a vibrant downtown culture with a balance of history, culture, and modernization. This case study will seek to use publicly available data and data science modeling methods to explore:

1. The neighborhood demographics of Richmond, Virginia metro area (suburbs).
2. What types of businesses populate Richmond, Virginia metro area.
3. Seeking a business opportunity to open a new grocery store;
   a. Is there a neighborhood lacking grocery service within reasonable proximity?
   b. What type of grocery store would best be suited for this opportunity (High end, Middle level, Discount)?

Data Sources:

Richmond, VA City portal: https://data.richmondgov.com/

Richmond neighborhoods: https://en.wikipedia.org/wiki/List_of_neighborhoods_in_Richmond,_Virginia

Richmond Foursquare data: https://developer.foursquare.com/places