

## **1. Introduction**

Market research is one of the key elements for all successful startups. The study consists of analyzing the market to determine the viability of a new product or service. One of the challenges experienced by new entrants is the identification of a product and a convenient location for the business to maximize revenue. One solution is to geographically segment areas of interest by state city or neighborhood and the use of market orientation to identify the various trends in the market. The data obtained then is used to create a product or service to satisfy the market. This project uses a top down approach of data science and machine learning to develop a model which can be used by entrepreneurs to identify the most suitable location and business type for their startup. An unsupervised learning algorithm was deployed (k-means) using data generated from Foursquare. The foursquare application identifies trending venues and their types given the geographic coordinates of a city or neighborhood

The state of Florida is located in the south eastern region of the United States. Bordered by state of Georgia, the Gulf of Mexico and the Atlantic Ocean, the sunshine state has the longest coastline (1197 miles) in the US with 825 miles of beaches. Being the fourth largest economy in the US, with a population of 21.48 million and 131.4 million tourist visits spending USD40 billion annually, Florida was chosen as the state to start a business. Due its large land mass the challenge was the choice of location and the type of business. This project aims to identify the most appropriate county and the type of business for a startup.

## **2. Business Problem**

How to identify a business category and determine the geographic location of a startup which generates profit and maximizes revenue.