Capstone Project – The Battle of Neighborhoods (Week 1)

Applied Data Science Capstone

# The Rise of The Third Wave Coffee Movement: Coffee Shops in Portland vs Hillsboro

#### Introduction

Oregon is the most geographically diverse state in the U.S., surrounded by volcanoes, bodies of water, mixed forests, high deserts and semi-arid shrublands. The largest contributor of its economy from agriculture, fishing, timbers, and hydroelectric power. Moreover, technology has started to become one of its major economic forces in the 21<sup>st</sup> century, or more known as "Silicon Forest" establishment with the expansion of Tektronix, Intel, and Nike. This high tech cluster industries are located in Portland Metropolitan Area that includes Hillsboro. On top of that, due to its beautiful and family friendly sites that can be visited over the weekend, Oregon has attracted so many talents from all over the world to establish their life in this state.

Coffee has been one of the hottest commodity in the world. In the US itself, people consume 400 million cups of coffee per day making the US the leading consumer of coffee in the world. Nowadays, people are consuming coffee not only just for the sake of their daily caffeine intake, but also for the enjoyment and appreciation of so called high quality and specialty coffee – or so called as the third wave coffee movement. In March 2008, Jonathan Gold coined this term by saying: The first wave of American coffee culture was probably the 19<sup>th</sup> century surge that put Folgers on every table, and the second was the proliferation, starting in the 1960s at Peet's and moving smartly through the Starbucks grande decaf latte...We are now in the third wave of coffee connoisseurship, where beans are sourced from farms instead of countries, roasting is about bringing out rather than incinerating the unique characteristics of each bean, and the flavor is clean and hard and pure.

## Objective

Comparing Portland's coffee culture to other major cities along the West Coast, Oliver Strand wrote: "Seattle coffee might have more muscle, and San Francisco coffee might have more mystique, but Portland's coffee scene is arguably the country's most intimate. It's also one of the most relaxed." This capstone project will analyze coffee shops in Portland as one of the main venues and estimate the potential new upcoming location from the map. The median household income will also be provided to emphasize people still have disposable income to consume the expensive but high quality third wave coffee. Furthermore, an analysis on coffee shops in

Hillsboro will also be provided as an alternative to coffee shops in Portland, which can be a potential attractive opportunity for investors.

#### Data

For this project, two data will be needed: 1) data of median household income in Portland and Hillsboro, 2) and data of venues in Portland and Hillsboro. The data of median household income in Portland and Hillsboro will be obtained from datausa.io/profile/geo. The data of venues in Portland and Hillsboro will be obtained from Foursquare API.

## Methodology

- 1) Raw income data collection from datausa.io/profile/geo and processed using excel file to obtain the median household income.
- 2) Venues location from Foursquare API and rank them based on the venues count.
- 3) Map visualization using Folium to estimate the next potential location for opening up a new location