**Battle of the Neighborhoods: Where Should You Stay to Best Take Advantage of Free Attractions in Washington, DC**

**Problem Description and Goal**:

This project will attempt to identify which Washington, DC neighborhoods provide the greatest value to Airbnb customers while remaining in close proximity to free attractions, such as parks, monuments, museums, etc.

**Target Audience**:

This project may be of interest to local businesses, including would-be restraunteurs and food trucks, street performers, merchandisers. In addition, this project aims to illuminate, for potential tourists, where to stay in DC to maximize bang for your buck without compromising proximity to free attractions.

**Data Description**:

This project will make use of free, publicly-available datasets. This data will be made available on my Github/Coursera\_Capstone Sources include:

1. FourSquare’s City Guide data on Washington, DC sightseeing attractions
2. Inside Airbnb’s listing dataset for Washington, DC (compiled on 9 September 2020);
   * Prior to cleaning, this data includes 74 attributes and 7,350 tuples
   * Inside Airbnb uses the following parameters for this dataset:
     1. A high availability filter and frequently rented filter use criterion of 60 nights/year to identify listings not available for residential housing.
     2. A review rate of 50% for the number of guests making a booking who leave a review
     3. An average booking of 3 nights unless a higher minimum nights is configured for a listing
     4. A maximum occupancy rate of 70% to ensure the occupancy model does not produce artifically high results based on the available data
3. Open Data DC Points of Interest dataset (compiled on 22 October 2020)
   * Prior to cleaning, this data includes 35 attributes and 9,339 tuples

This data will be used to discern the best value for Airbnb stays in DC by neighborhood, where value is informed by:

* The average cost for a two-night stay or longer per neighborhood
* The proximity of each neighborhood to the city’s 10 most popular, free tourist attractions as ranked by FourSquare users

**Data Attributes:**

1. Latitude
2. Longitude
3. DC Neighborhood
4. Listing Name
5. Review Score Rating
6. Property Type
7. Price/Night
8. Minimum Nights
9. Attraction Name
10. Attraction Rating

**Goal:** To recommend the top “value” for Airbnb lodging in DC with the top five listings