December 22, 2021

Emerson College Bootcamp, Data Analytics

**Group Name:** Return Rates Researchers

**Members**: Rebecca Melo, Ngoc-Tran Nguyen, Hinley Fung and Stephanie Thurstone

**Project III:** Travel Safe Guide

**Hypothesis**: Avid travelers visit this interactive dashboard in an effort to narrow down the areas in which they wish to travel based on visualizations and click-through data that provides in depth information based on the area of interest and COVID-19 restrictions. Users view this dashboard as a "travel (safe) guide."

**Data to be Utilized:**

* Trip Advisor API: <https://developer-tripadvisor.com/content-api/documentation/>
* COVID-19 Restrictions API: <https://www.bsg.ox.ac.uk/research/research-projects/covid-19-government-response-tracker>
* <https://github.com/OxCGRT/covid-policy-tracker/tree/master/data>
* <https://www.kaggle.com/datafiniti/hotel-reviews>
* <https://www.kaggle.com/amineelyazidi/trip-advisor-hotels-data>
* *More data to be researched and incorporated*

**Project Tracks:**

* A combination of web scraping and Leaflet or Plotly
* A dashboard page with multiple charts and update from the same data

**JS Library of choice (not covered):**

* <https://www.chartjs.org/>

**Procedures:**

* **Data and Delivery:** 
  + Conduct research via API/web scraping and CSV sources from Kaggle
* **ETL:** 
  + Extract - determine exact datasets to be utilized in conjunction with API
  + Transform – analyze extracted data using Jupyter Notebook/Pandas
  + Create a database using pgAdmin (create schema/import data, etc.)
* **Visualizations** 
  + Generate interactive map of the US
  + Create pages for each state with relevant information (covid-19 restrictions and ‘things to see and do’)
  + Create visuals such as top-rated areas of travel / lowest covid-19 case load, etc.