

# Weather and Vacation

(Part 1 Only)

## Data Analysis Report

Prepared by Trumane Lee

### Observable Trends

1. According to the data sample that was collected on April 13, 2020 for randomly collected cities, the northern hemisphere contained 400 cities, while the southern hemisphere contained 165 cities. Cloudiness held the weakest correlations of all the weather observations when comparing the northern and southern hemispheres. The northern hemisphere revealed an R-value of 0.01 and the southern hemisphere held an R-value of 0.040, in terms of cloudiness.
2. In terms of correlation when examining Windspeed (mph) for city location (based on latitude) on April 13, 2020 for both the northern hemisphere ( $r = 0.014$ ) and southern hemisphere ( $r = 0.042$ ), both reflected very weak correlations.
3. In terms of observing the Maximum Temperature vs. Latitude in the northern and southern hemispheres, the data showed that the northern hemisphere held a strong correlation ( $r = 0.78$ ) where the southern hemisphere held a weak correlation ( $r = 0.39$ ). These maximum temp and latitude variables held the strongest correlations of all the weather conditions that were observed for the 565 selected cities. It can be concluded that the latitude plays the strongest factor in max temperature weather conditions.

### Heatmap Screenshot

Humidity Vs. Hotel Location





