WeatherPy Analysis | Lindsey Giron

Based on the scatter plots and Pearson’s correlation results, we can state a direct correlation between a cities temperature (Fahrenheit) and distance from the equator. Furthermore, when we split the data between the Northern and Southern hemispheres, it was clear the strongest correlation was in the Northern Hemisphere with an r-squared result of .79. In the Northern Hemisphere’s scatter plot, we see a straight-line trending close together with few outliners. The Southern Hemisphere had an r-squared result of 0.48, which is a weak correlation. In the Southern Hemisphere scatter plot, we see a trend going upwards as it gets closer to the equator. Still, we also see that some cities begin to break away after the latitude passes -40 degrees and peak before reaching the equator.

For Humidity and Cloudiness, there is no correlation with a cities distance from the equator, even after splitting the data between hemispheres. The only thing to note is that in the Northern Hemisphere, while the data is spread out, we also see that after 50 degrees in latitude, most of the cities record high humidity.

The correlation between Wind Speed (mph) and the distance between a city and the equator is none, with an r-squared result of 0.02 for the Northern Hemisphere and 0.03 result for the Southern Hemisphere. We can state the Wind Speed tends to be at lower speeds, with some outliers.

In conclusion, there is a direct effect between a city’s temperature, and its distance from the equator, with a stronger influence in the Northern Hemisphere.