Seoul - Bike Sharing Rentals

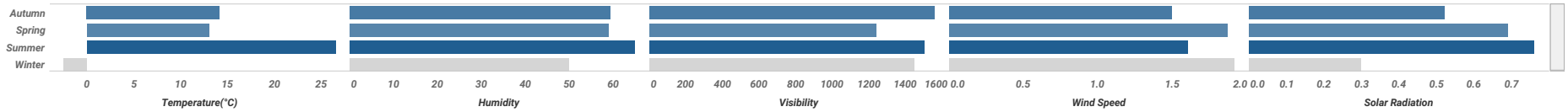
Seoul is aiming to be more environmentally friendly when it comes to traversing the city. One major initiative is Ddareungi, also known as Seoul's bike sharing system. While it has been well received, it is clear that rental volumes vary and sometimes lead to wait times and shortages. It is important that we improve access now and meet future demand.

With that said, we took a look to see what impacts bike rentals. More specifically the trends at different times (season, month, hour, etc.) and different atmospheric conditions. With the useful insights we can ensure, going forward, that anyone who wants to rent a bike will be able to. Thus, leading to less traffic, lower emissions, and an increase in overall physical health.

Seoul - Rental Bike Insights

Seoul Bike Rentals - Introduction | **Atmospheric Rental Trends** | Rental Overview - In and Out of Rain | Takeaways & Suggestions

Seasonal Trends

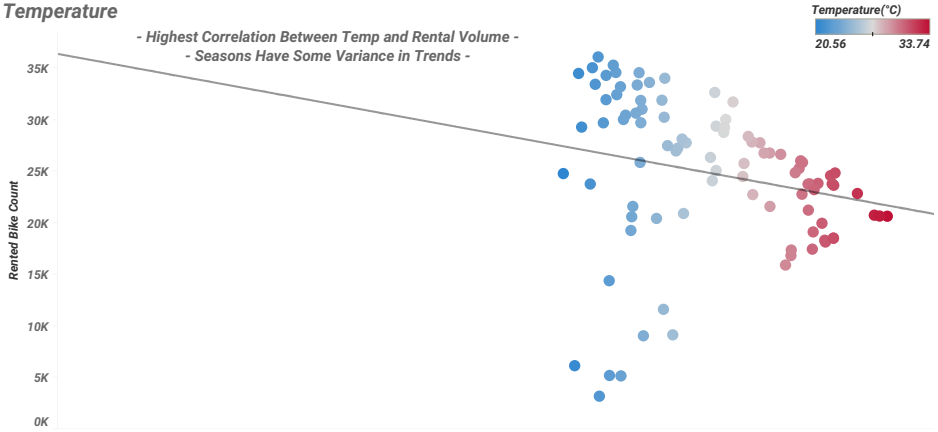


Season: All

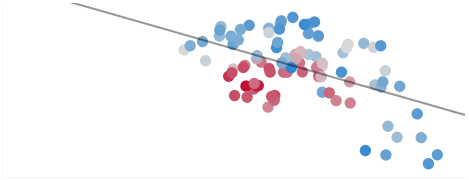
Month: All

Temperature

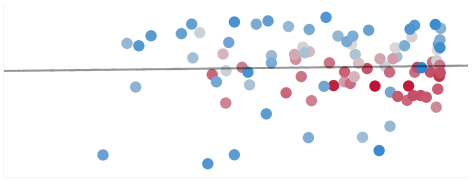
- Highest Correlation Between Temp and Rental Volume -
- Seasons Have Some Variance in Trends -



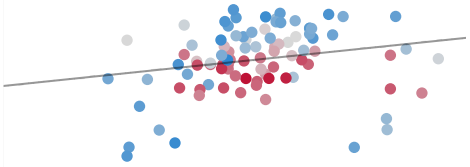
Humidity



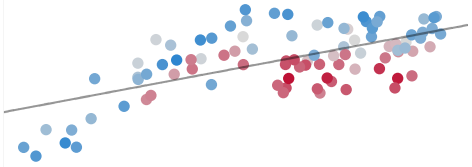
Visibility



Wind Speed

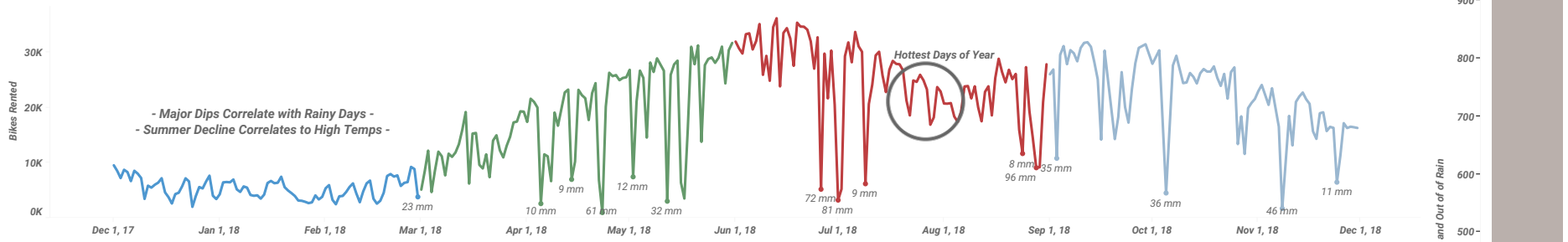


Solar Radiation

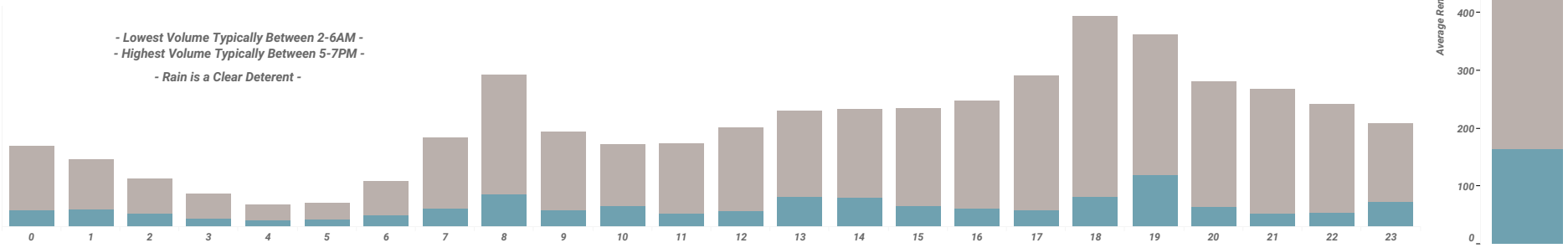


Seoul - Rental Bike Insights

Rental Overview - In and Out of the Rain



Mean Hourly Rentals



Key Takeaways

Before getting into the potential insights of this data, it is important to note that this only covers the previous twelve months. This can mean that there are other factors at play that we cannot gage at this time. For example, was it all atmoshperic conditions and time that changed rental volumes or did it gain popularity? Did a change in street traffic play a role?

Given this, we can still see some correlations and peak times within the data. The three biggest factors come down to time of day, outside temperature, and wether or not it is raining. At its height, temperature is hot but not too hot(When temperature is above 28°C there are diminsihing rentals), it is around 5-7PM, and it is not raining. Given the opposite conditions, cold, rainy, and around 2-6AM, rentals are at their lowest.

This is supported by lower Winter/Autumn volumes, higher Spring/Summer volumes, and major dips on rainy days. Other atmospheric conditions played a role to an extent, but either correlted with temperature or time of year. Only in extreme conditions did they stand out.

Suggestions

- Slowly Ramp Up Supply When Spring Comes Around / Avoid Oversupply
- Ensure People Return Bikes Properly For Better Access and Turnaround
- Look Into Rentals by Area to Check for Allocation Issues
- Continue to Monitor Trends/Volume Over Time
- Make Use of Surveys to Gain Insights on External Factors