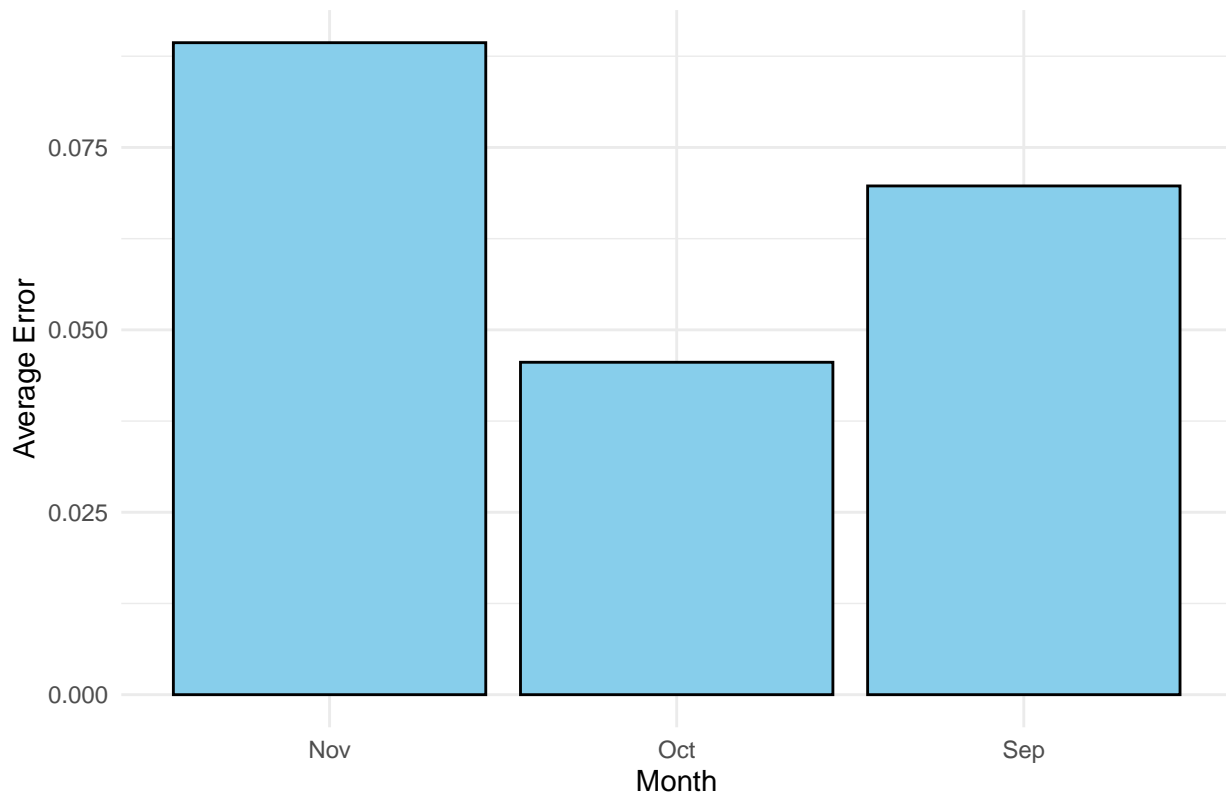


Capital Metro Assignment

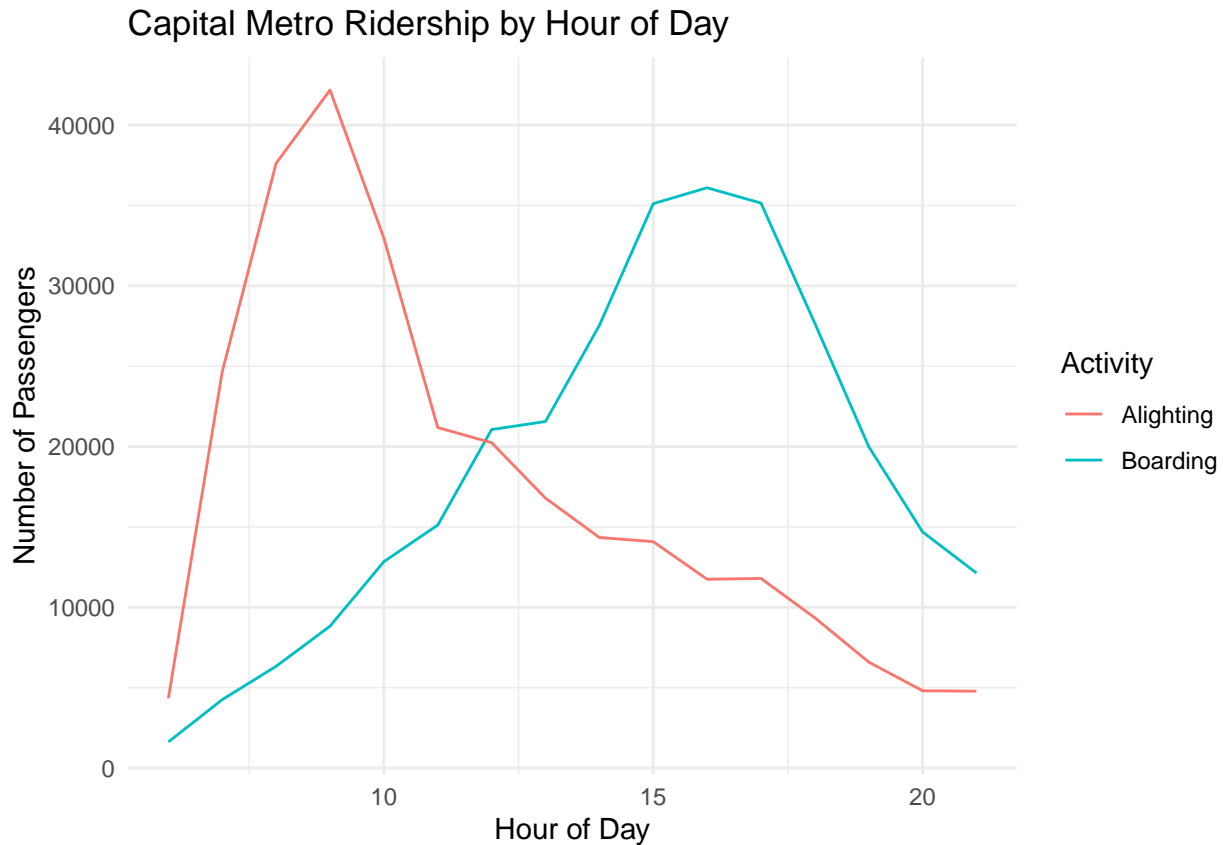
Haden Loveridge, Alex Parson, Biagio Alessandrello

Visual story telling part 2: Capital Metro data

Average Error per Month

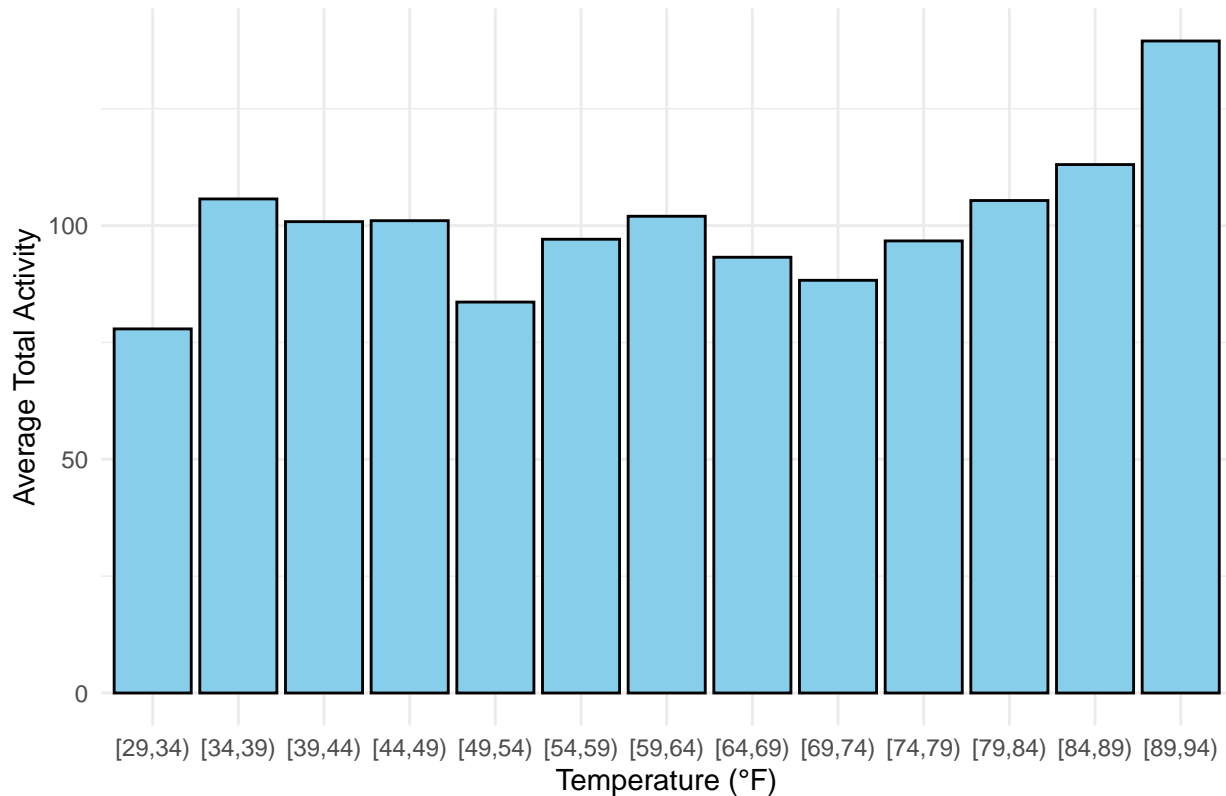


We see an interesting phenomenon when investing our total ridership per day. In a perfect world these numbers should be the same, unless we have people sleeping on the bus. Our findings suggest that our optical scanner is prone to error and the above graph shows the average daily error by month.

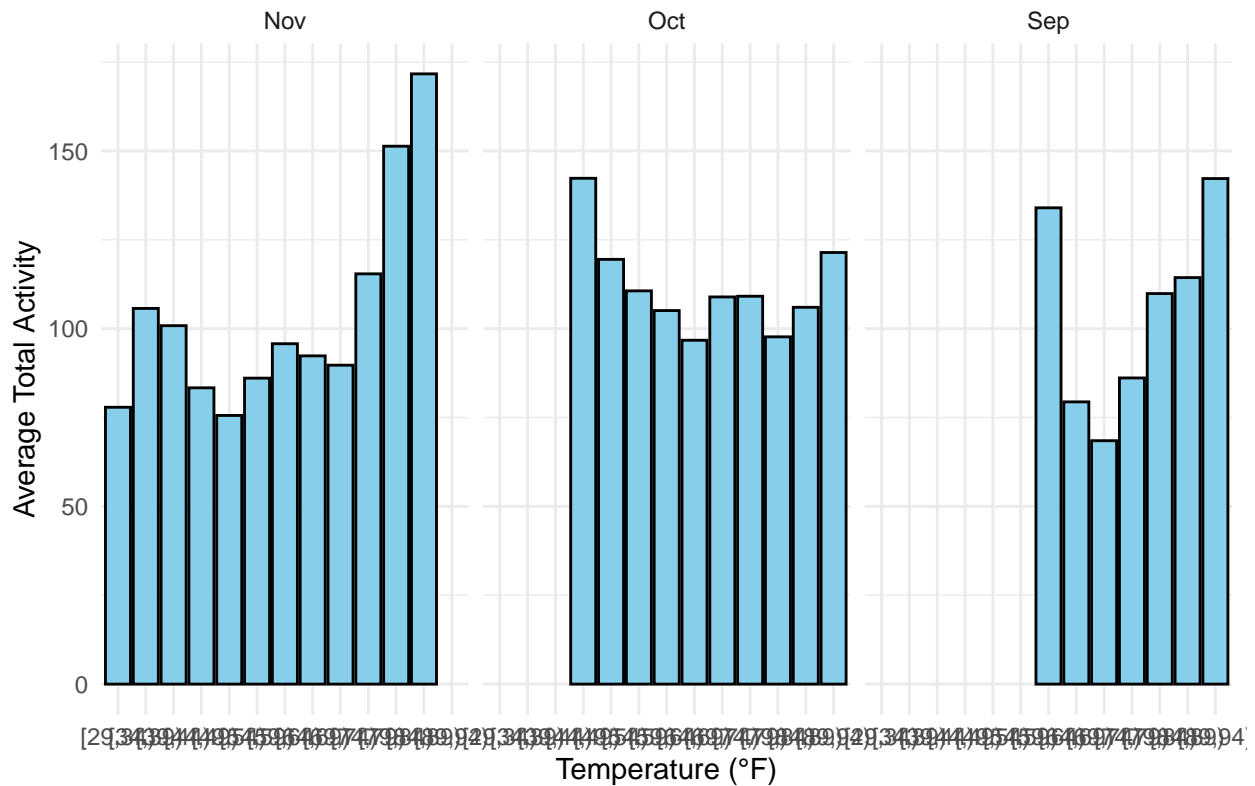


Following the error mentioned above you can see the difference between the alighting and the boarding through hours of the day. At the start you can see that the alighting starts above the boarding showing the error. In a perfect world these two lines should be almost identical but we can see that they are skewed or mirrored to each other. We came to the conclusion that some of this error and the peaks are due to the rush hour flow in the morning everyone getting on and in the evening everyone getting off. Another hypothesis especially in the early morning and late at night can be subject to lack of lighting.

Histogram of Average Total Activity by Temperature Bucket



Histogram of Average Total Activity by Temperature Bucket and Month



Total activity is measured as the sum of people boarding and alighting. When we compare total activity

strictly across temperature, we see little change. When we then break apart temperature by month, we then see increased activity in the lows and highs of the temperature. This can be due to people's difference in tolerance of temperature according to the month, motivating them to ride the bus more during those peak temperatures.