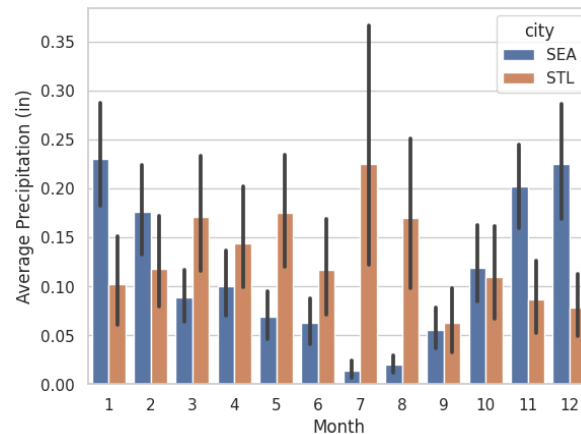


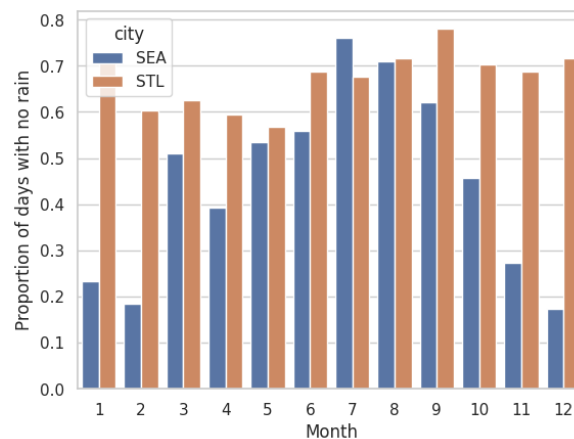
In this project, data science was used to understand whether it rains more in Seattle, WA or St. Louis, MO. For each city, 5 years of precipitation data from NOAA was used to investigate the question. There are several ways to understand what it means to “rain more” in a particular city, so the problem was explored from several angles:

Most Rain Overall



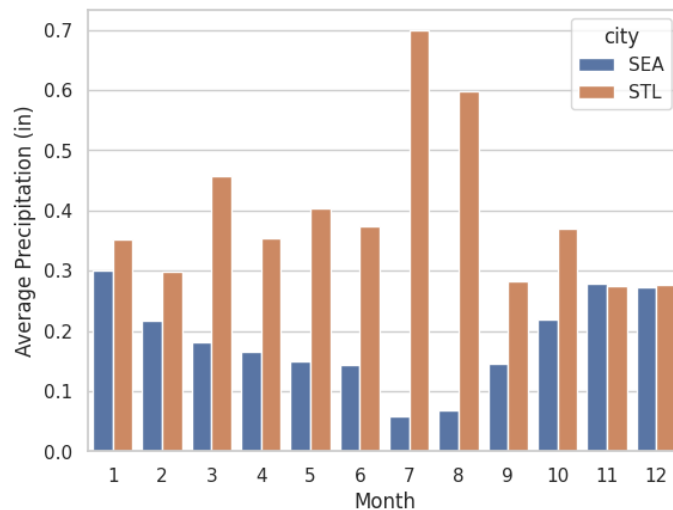
First, we can interpret the question literally and look at the average overall rainfall. Seattle has more precipitation during 7 months of the year. However, we can also see that there are several months when St. Louis has significantly more precipitation than Seattle. At this point, an honest conclusive answer could not be given about which city has “more rain,” so next we can look at the characteristics of each city’s precipitation.

Most Days With No Rain



This graph shows the average amount of days in each month where no precipitation is recorded. The y-axis is a relative measure, rather than an absolute number of days because not all months have the same number of days. As we can see, St. Louis offers more rainless days through most of each year. Seattle catches up during the summer, but can only eke out a win for one month.

Amount of Rain on Rainy Days



It clearly rains more often in Seattle. But when it *does* rain in St. Louis, how does it compare to Seattle? The graph above shows the average amount of rainfall on rainy days. In other words, the “raininess” of rainy days. St. Louis rains harder for 11 months of the year. For many of those months, the margin between St. Louis and Seattle is quite high. It is clear that it rains harder in St. Louis.

Simply stating that 'it rains more' in St. Louis or Seattle doesn't capture the whole truth. The characteristics of rainfall in both cities are quite different, and vary throughout the year. It is undeniable that rain is a more frequent occurrence in Seattle. However, a typical rain event in Seattle is much more gentle than one in St. Louis. If one is looking for dry days, St. Louis wins here. If one is trying to avoid heavy rain, Seattle may be a better bet.