



# Bicycling in Seattle

IBM Capstone Project

# Query: What are the trends of cycling in Seattle?

The city of Seattle is known for its environmentally minded citizens, and one of the best methods for travel is by bike.

According to **Bicycling.com** Seattle is the best city for cycling in America. The city has some of the best lanes in the country, example, there are barriers that protect riders from traffic. Whether that's a concrete block that weighs hundreds of pounds or a raised row of planters, these physical separations defend cyclists against out-of-control drivers, or those trying to sneak through to park in the bike lane.

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**Data:**

**The dataset comes from Seattle's  
department of Transportation**

<https://data.seattle.gov/Transportation/Fremont-Bridge-Bicycle-Counter/65db-xm6k>



## Data Description

The Fremont Bridge Bicycle Counter began operation in October 2012 and records the number of bikes that cross the bridge using the pedestrian/bicycle pathways. Inductive loops on the east and west pathways count the passing of bicycles regardless of travel direction. The data consists of a date/time field: Date, east pathway count field: Fremont Bridge NB, and west pathway count field: Fremont Bridge SB. The count fields represent the total bicycles detected during the specified one hour period. Direction of travel is not specified, but in general most traffic in the Fremont Bridge NB field is travelling northbound and most traffic in the Fremont Bridge SB field is travelling southbound.



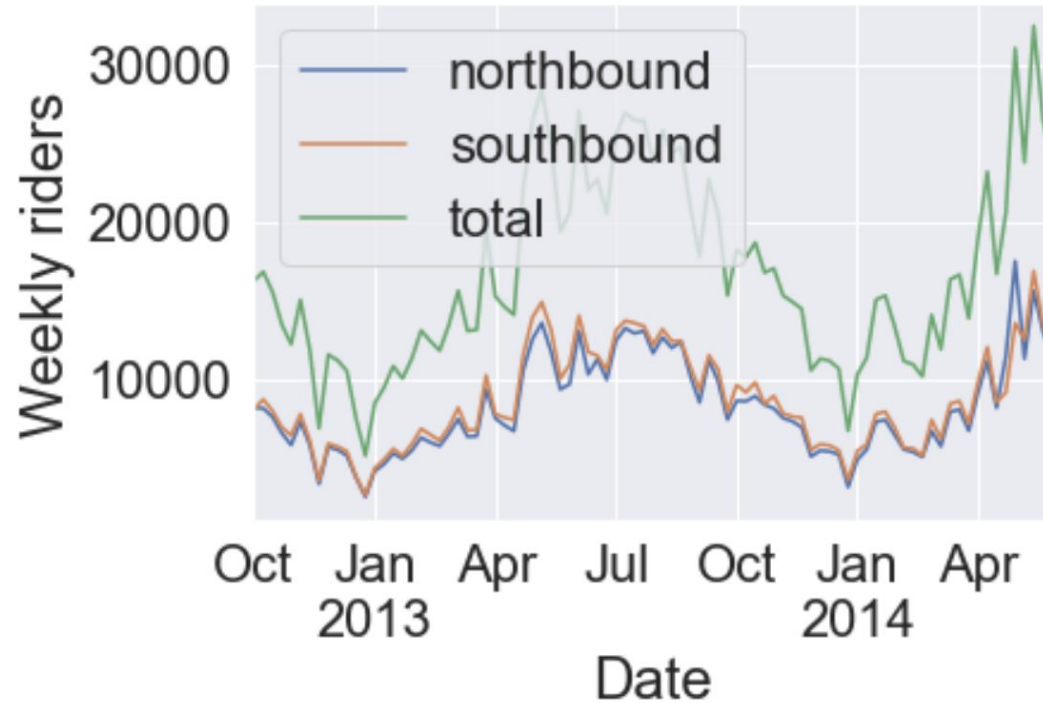
# Data Cleaning

- The dataset has 14,546 rows and 2 columns after dropping rows with any missing values
- A column titled total was created, which combined North and South bridge columns
- The dataset was checked for any null values with a return value of false

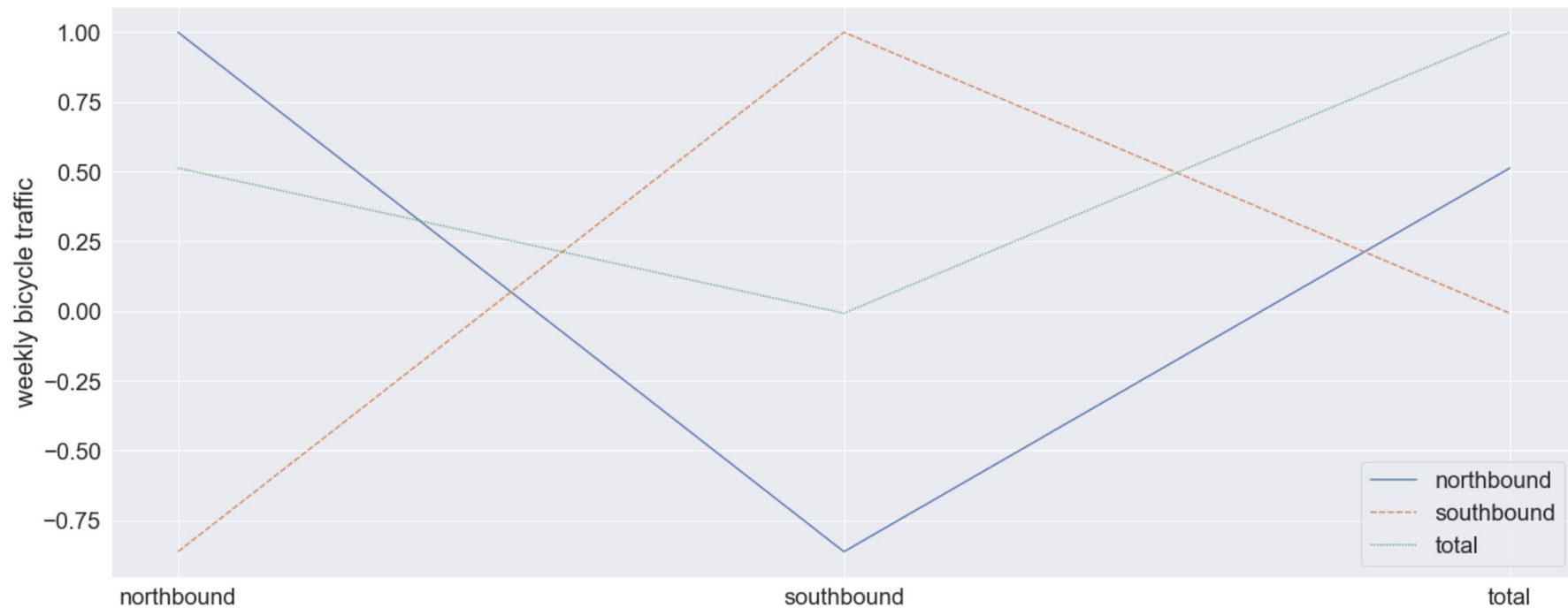
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# Methodology

# Data Analysis

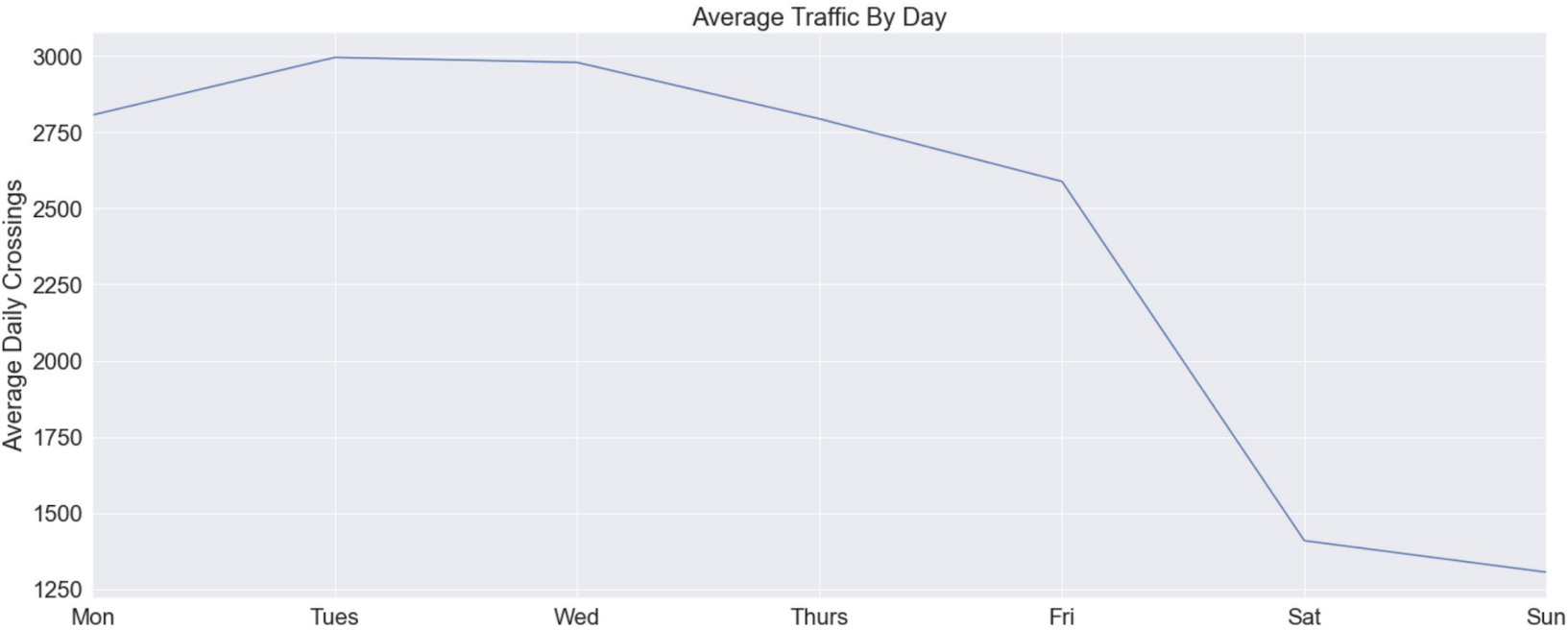


# Data Analysis

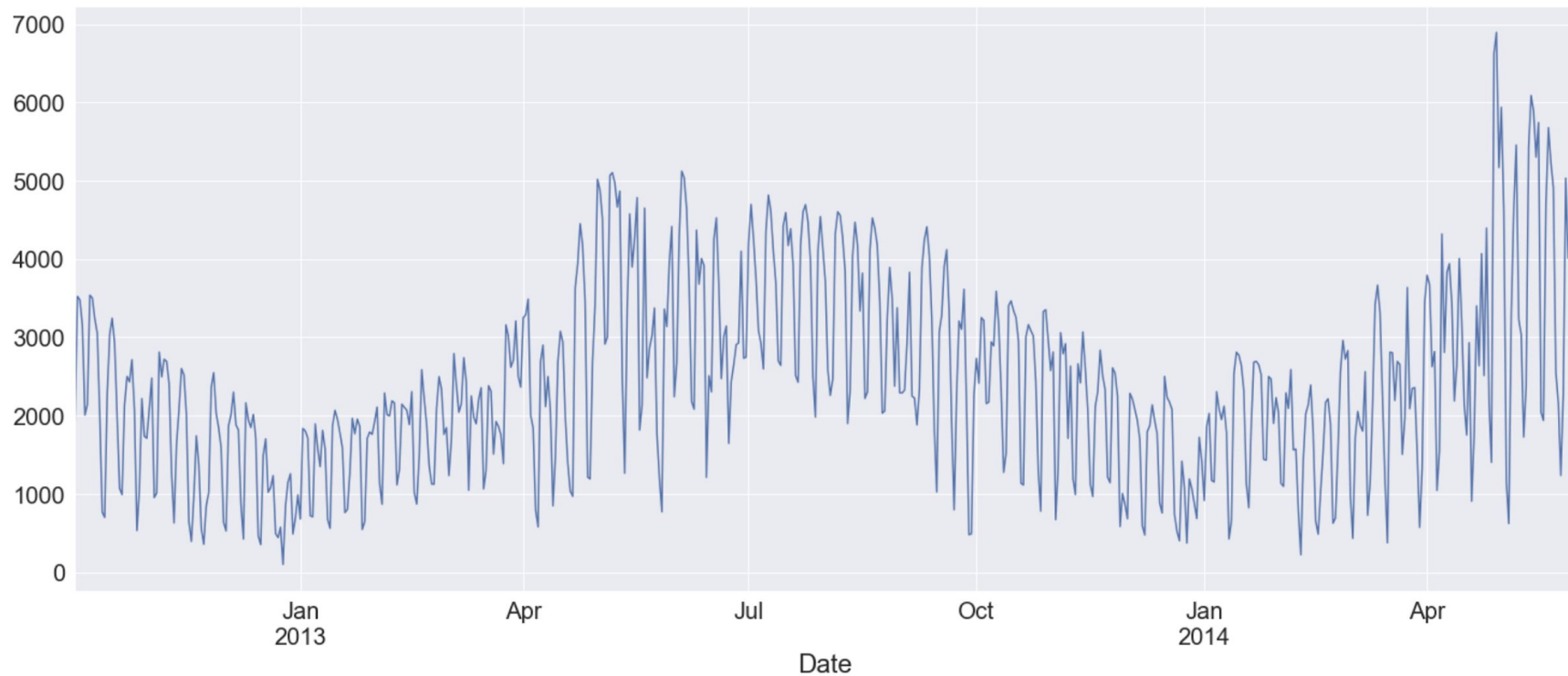




# Data Analysis



# Data Analysis



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# Results

- The total number of riders has increased to over 32,000 riders a week in 2014
- For the days of the week, the average high for tuesday and wednesday is 3000 daily crossings of Seattle's bridges
- During the colder months around January, the number of riders drops below 1000
- The number of riders for warm months rises to more than 3000. The same time and month in 2014 the number of riders spike to 7000

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# Conclusion

The overall trend is that the number of riders crossing the north and south side bridges is increasing in rider counts.

For the 2013-2014 years in the dataset, Seattle's number of riders is increasing, especially for the warmer months in comparing year to year values.