



# *Cycling Activity*

Elisabeth MacChesney  
Final Portfolio

# How Does Weather (specifically temp) Impact Riding Activity for the Day?

- For this project, I was interested in better understanding the relationship between the weather and people choosing to go on bike rides
- What is the Level of Rain's effect on Riding Activity?
  - Found the data set worked better with more general temperature
- I wanted to predict the riding activity difference depending on temperature for the day.

# Getting/Cleaning the Data

<https://www.kaggle.com/datasets/brendanhasz/nice-ride-mn-2017>

Start date	Start station	Start station ID	End date	End station	End station ID	Account type	Total duration (Seconds)
#####	Hennepin	30184	#####	Logan Park	30104	Member	1048
#####	Broadway	30122	#####	Broadway	30122	Member	2513
#####	Dale Street	30106	#####	N Milton S	30101	Member	1817
#####	Weisman	30183	#####	22nd Ave	30014	Casual	1399
#####	South 2nd	30030	#####	6th Ave SE	30088	Member	370
#####	15th Ave S	30197	#####	Oak Street	30034	Member	342
#####	Hennepin	30184	#####	Washington	30015	Member	617
#####	Bryant Ave	30067	#####	N Washington	30065	Member	1343
#####	N Milton S	30101	#####	Dale Street	30106	Member	838
#####	7th Street	30051	#####	West 15th	30093	Casual	559
#####	11th Street	30004	#####	Groveland	30187	Member	395
#####	Washington	30115	#####	Oak Street	30034	Member	122
#####	S 5th Street	30186	#####	4th Street	30027	Member	1210
#####	Cooke Hall	30192	#####	15th Ave S	30197	Member	169
#####	Civil Engin	30196	#####	15th Ave S	30110	Member	442
#####	McNamar	30057	#####	Civil Engin	30196	Member	153
#####	Como Ave	30109	#####	Como Ave	30109	Casual	679
#####	Weisman	30183	#####	Willey Hall	30195	Member	410
#####	6th Ave SE	30088	#####	Cooke Hall	30192	Member	368
#####	15th Ave S	30197	#####	Cooke Hall	30192	Member	179
#####	Midtown	30080	#####	Currie Park	30037	Member	945
#####	10th Street	30039	#####	YWCA Do	30006	Member	205
#####	10th Street	30039	#####	YWCA Do	30006	Member	187

Start date	Total duration (Seconds)			
11/5/2023 0:00	1048			
11/5/2023 0:00	2513			
11/5/2017 0:00	1817			
11/5/2017 0:00	1399			
11/5/2017 0:00	370			
11/5/2017 0:00	342			
11/5/2017 0:00	617			
11/5/2017 0:00	1343			
11/5/2017 0:00	838			
11/5/2017 0:00	559			
11/5/2017 0:00	395			
11/5/2017 0:00	122			
11/5/2017 0:00	1210			
11/5/2017 0:00	169			
11/5/2017 0:00	442			
11/5/2017 0:00	153			
11/5/2017 0:00	679			
11/5/2017 0:00	410			
11/5/2017 0:00	368			
11/5/2017 0:00	179			
11/5/2017 0:00	945			
11/5/2017 0:00	205			
11/5/2017 0:00	187			



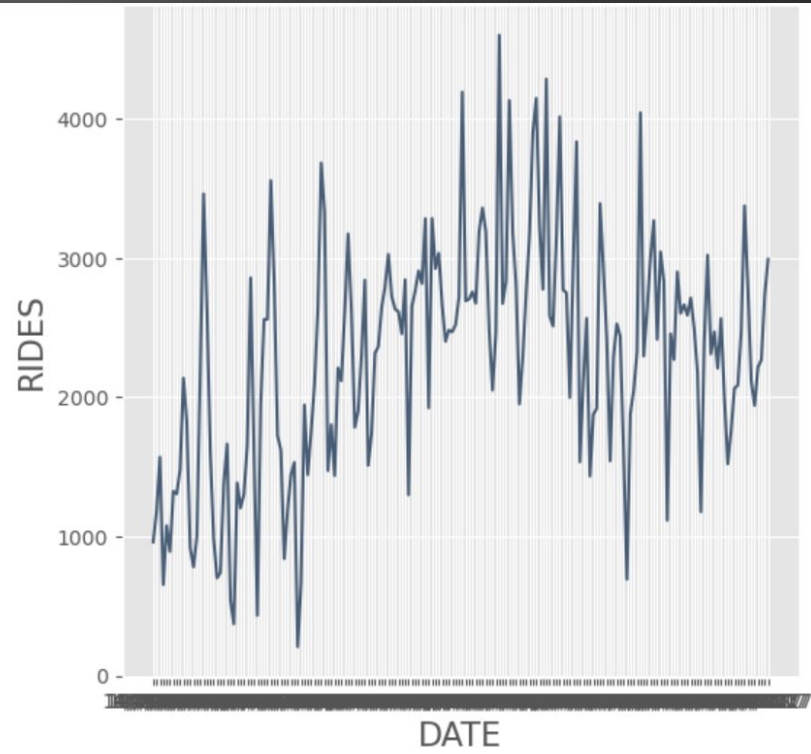
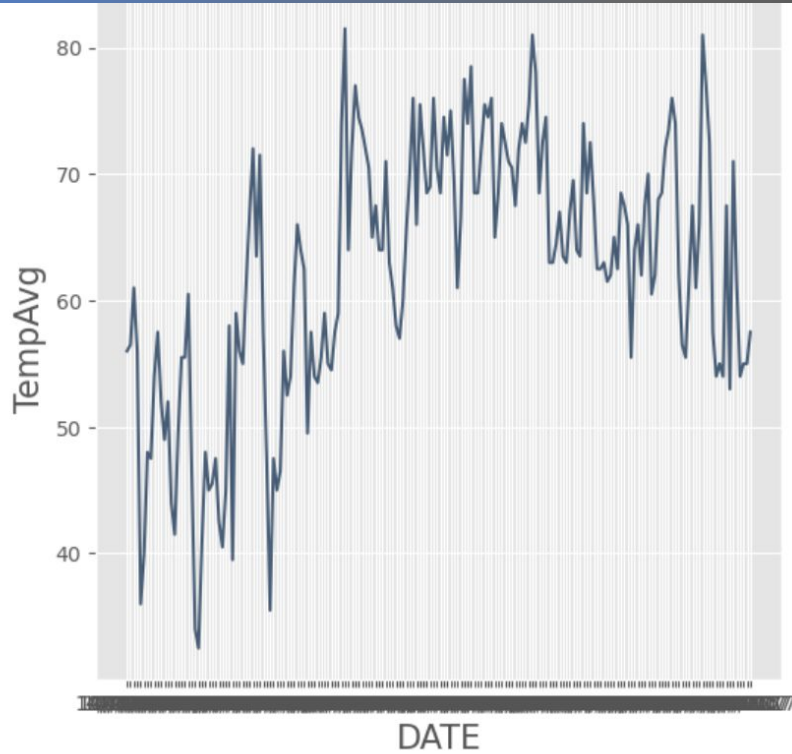
STATION	NAME	DATE	PRCP	TMAX	TMIN
USC00218	UNIVERSITY	1/1/2017	0	26	18
USC00218	UNIVERSITY	1/2/2017	0	31	20
USC00218	UNIVERSITY	1/3/2017	0.01	30	25
USC00218	UNIVERSITY	1/4/2017	0	25	-6
USC00218	UNIVERSITY	1/5/2017	0.01	2	-8
USC00218	UNIVERSITY	1/6/2017	0	0	-11
USC00218	UNIVERSITY	1/7/2017	0	5	-11
USC00218	UNIVERSITY	1/8/2017	0	7	-5
USC00218	UNIVERSITY	1/9/2017	0	17	-5
USC00218	UNIVERSITY	#####	0.16	25	15
USC00218	UNIVERSITY	#####	0.22	25	2
USC00218	UNIVERSITY	#####	0.04	8	2
USC00218	UNIVERSITY	#####	0	12	-10
USC00218	UNIVERSITY	#####	0	8	-9
USC00218	UNIVERSITY	#####	0	22	2
USC00218	UNIVERSITY	#####	0	32	3
USC00218	UNIVERSITY	#####	0.27	30	11
USC00218	UNIVERSITY	#####	0	34	25
USC00218	UNIVERSITY	#####	0	40	26
USC00218	UNIVERSITY	#####	0	37	29
USC00218	UNIVERSITY	#####	0	35	33
USC00218	UNIVERSITY	#####	0.02	36	33
USC00218	UNIVERSITY	#####	0	38	32

A	B	C	D	E
DATE	HIGH	LOW	TAVG	RIDES
4/3/2017	53	43	2100.7	543
4/4/2017	49	42	1823.786	1385
4/5/2017	59	36	996.39	1205
4/6/2017	52	33	1359.664	1305
4/7/2017	52	29	1375.828	1659
4/8/2017	58	32	2229.511	2858
4/9/2017	69	47	2532.544	1600
#####	70	42	546.7942	655
#####	43	29	1454.382	1078
#####	50	30	975.2508	893
#####	54	42	1454.857	1325
#####	52	43	2625.72	1306
#####	62	46	2615.858	1481
#####	70	45	3206.364	2137
#####	62	42	1963.975	1822
#####	56	42	1384.254	920
#####	62	42	882.7992	782
#####	50	38	815.337	1000
#####	48	35	1662.953	2193
#####	60	39	2172.909	3460
#####	67	44	2273.996	2640
#####	66	45	1667.569	1603
#####	70	51	1130.061	982

# Exploring the Data

- Find relationship between precipitation instead of the temperature associated with riding activity
- Estimate the time it takes to bike between different areas of the city
- Explore how likely a person with a membership to the renting company will use the bikes

# Results



# Conclusion

In conclusion, temperature does seem to affect the number of people that choose to rent a bike for the day, and Holidays as well seem to have a lower number of rentals for the day.

This could be useful data for bike rental companies so they can know what to expect for winter/summer months.

Questions?