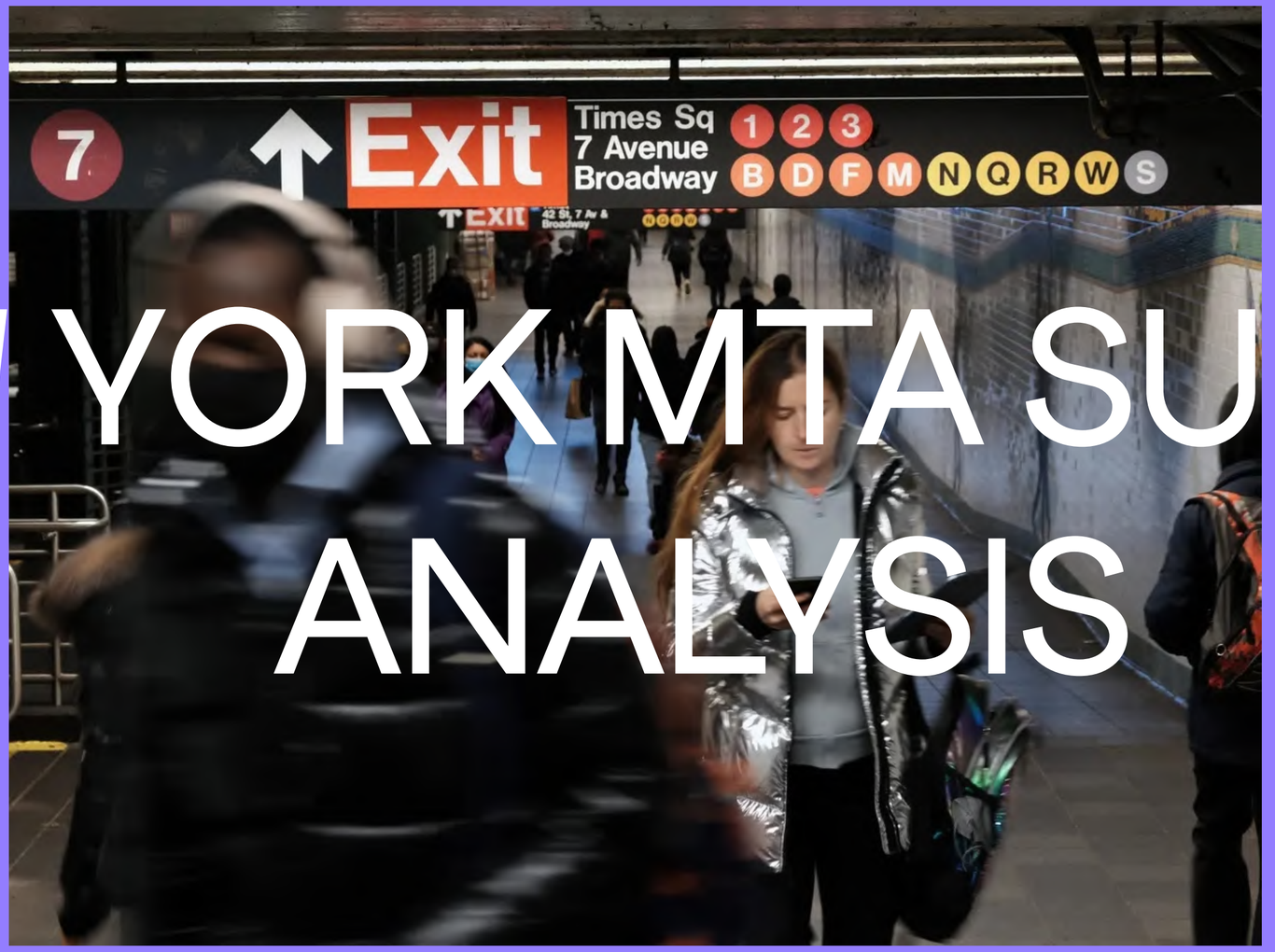
October 12, 2023

ISTANBUL DATA SCIENCE ACADEMY



NEW YORK MTA SUBWAY ANALYSIS

BAYRAM BERK

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Next steps

Problem

Choosing the optimum placement of street teams at the subway entrances to maximize the participation and donation rate to the gala.

Solution

Analyze MTA subway data to strategically position street teams in areas with high concentrations of potential participants.

Target

Identify the busiest stations, days, and periods to determine the most suitable locations for maximizing the effectiveness of invitation distribution.

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Methodology

New York City Subway

from June 1st to August 31th, 2023

jupyter

pandas NumPy

seaborn matplotlib

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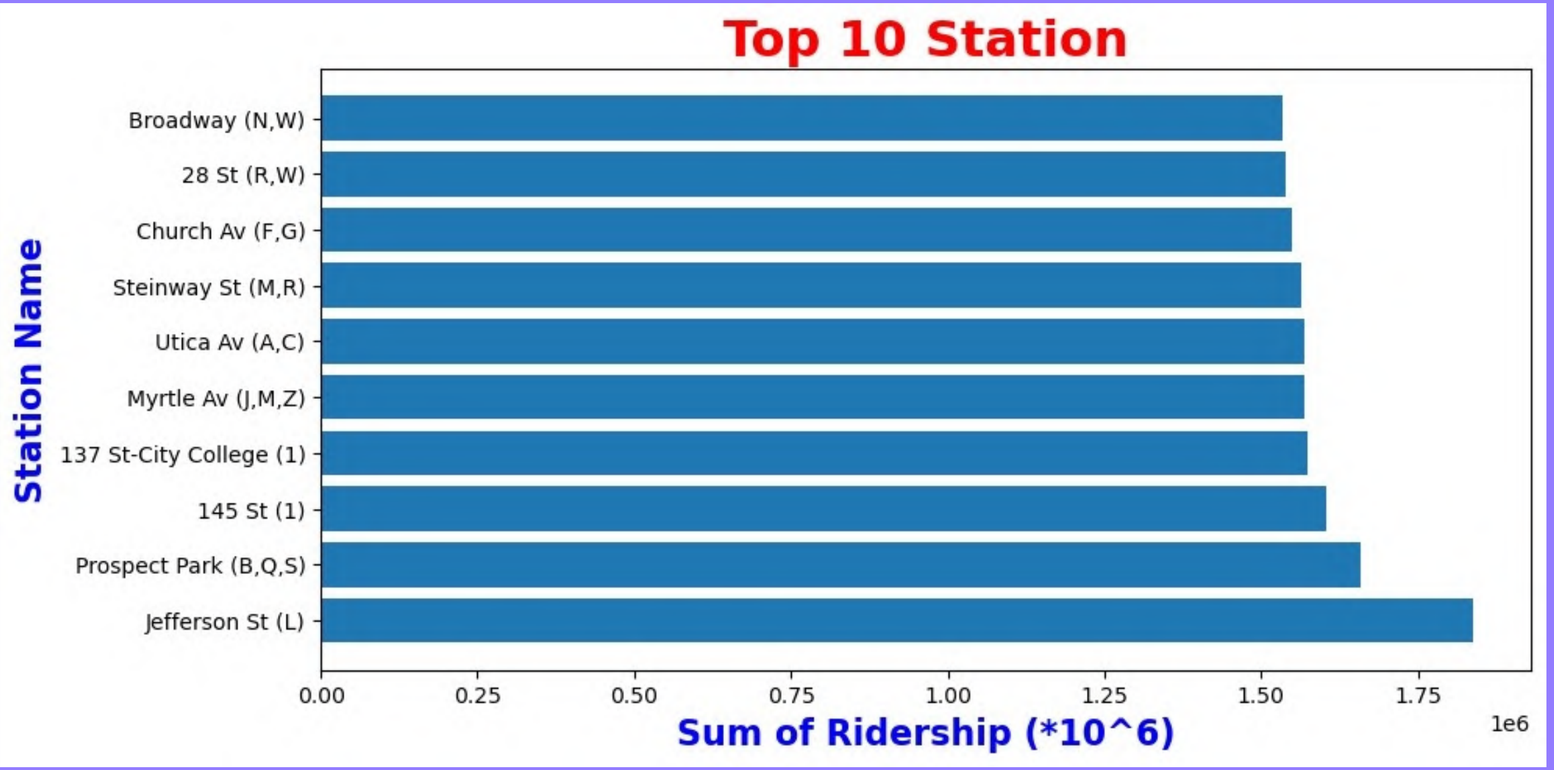
Graphs & Analytics



The Busiest Top Two Stations

1. Jefferson St (L)
2. Prospect Park (B,Q,S)

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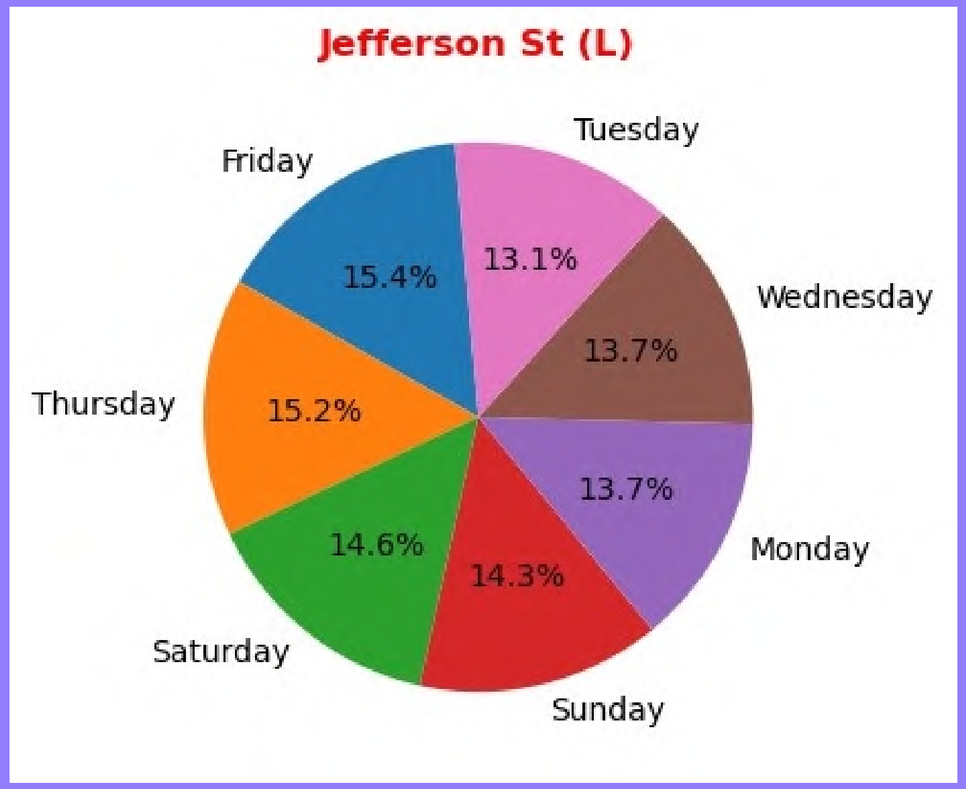
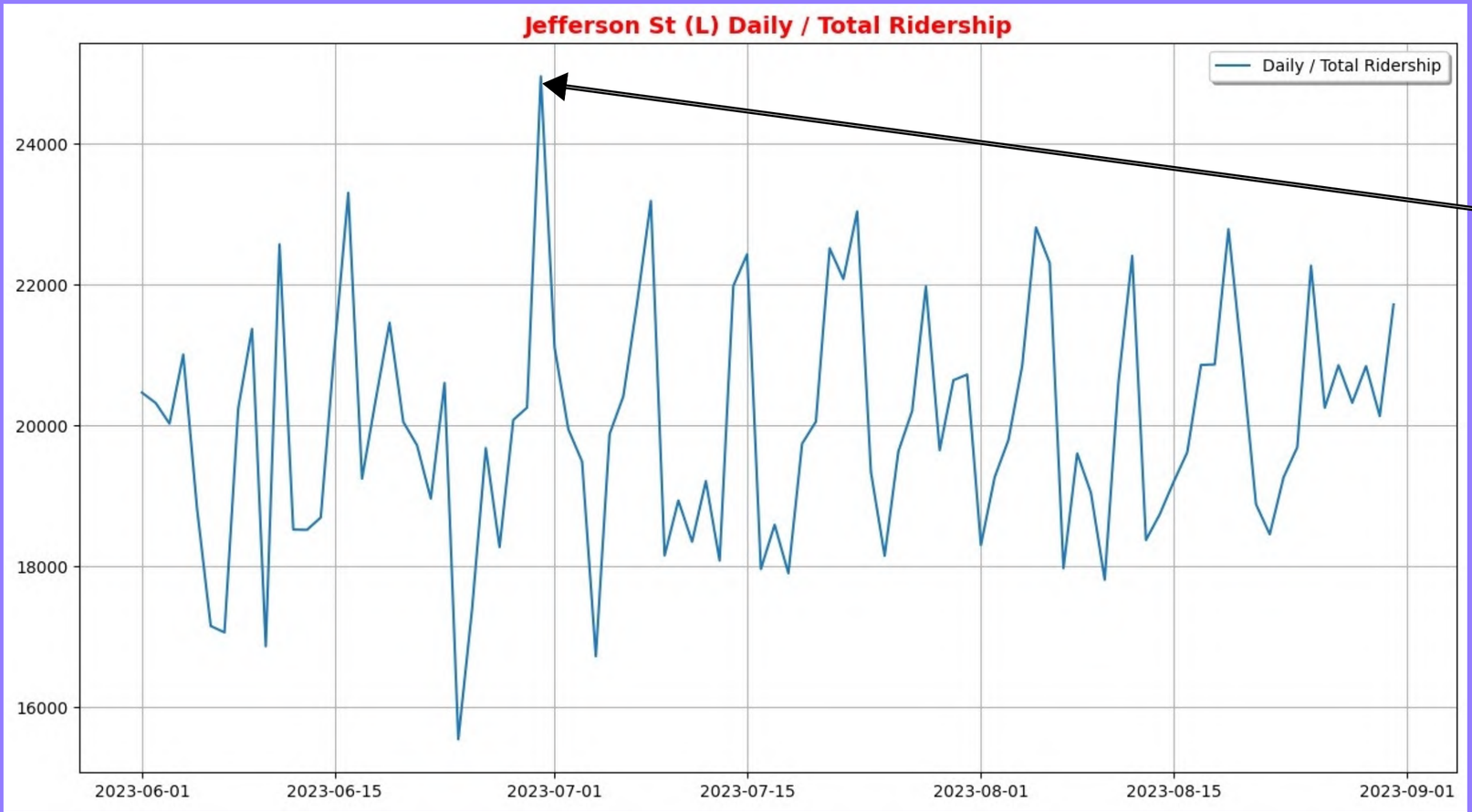
Jefferson St (L) / Graphs



Friday	283320
Thursday	279611
Saturday	268360
Sunday	263496
Monday	251448
Wednesday	251310
Tuesday	241488

Try Pitch

Jefferson St (L) / Graphs



The Busiest Day of Jefferson St (L)

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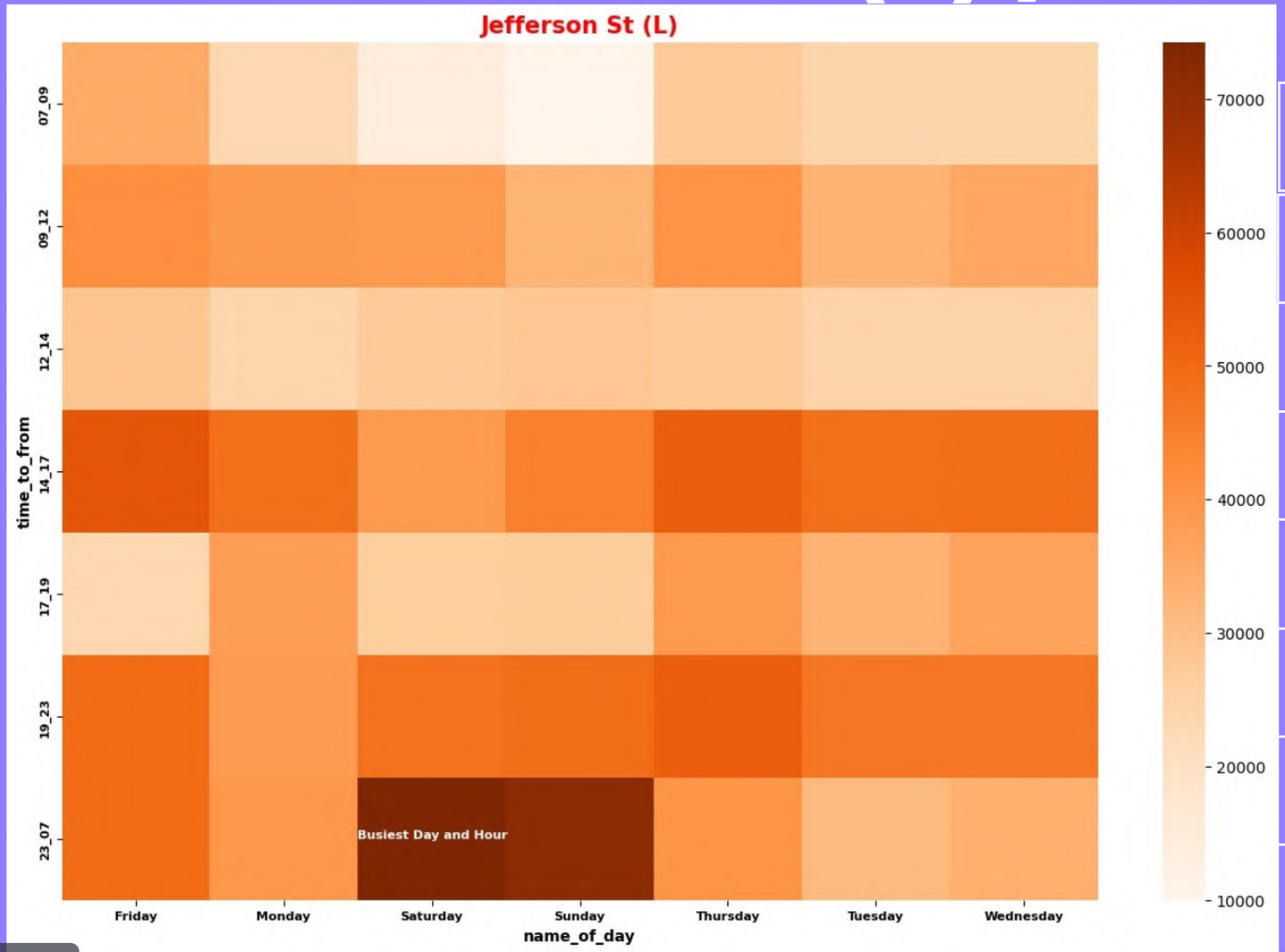
Jefferson St (L) / Graphs



name_of_day	Friday	Monday	Saturday	Sunday	Thursday	Tuesday	Wednesday
07_09	34784	23753	14024	9996	27511	24282	24359
09_12	41848	39350	39012	32492	40551	32883	35841
12_14	28772	24046	27436	28568	27377	24609	24843
14_17	54596	48412	38884	44920	52506	48625	49037
17_19	23668	37928	26792	27016	38942	32955	36770
19_23	49800	38586	47940	49212	52568	47038	46726
23_07	49852	39373	74272	71292	40156	31096	33734

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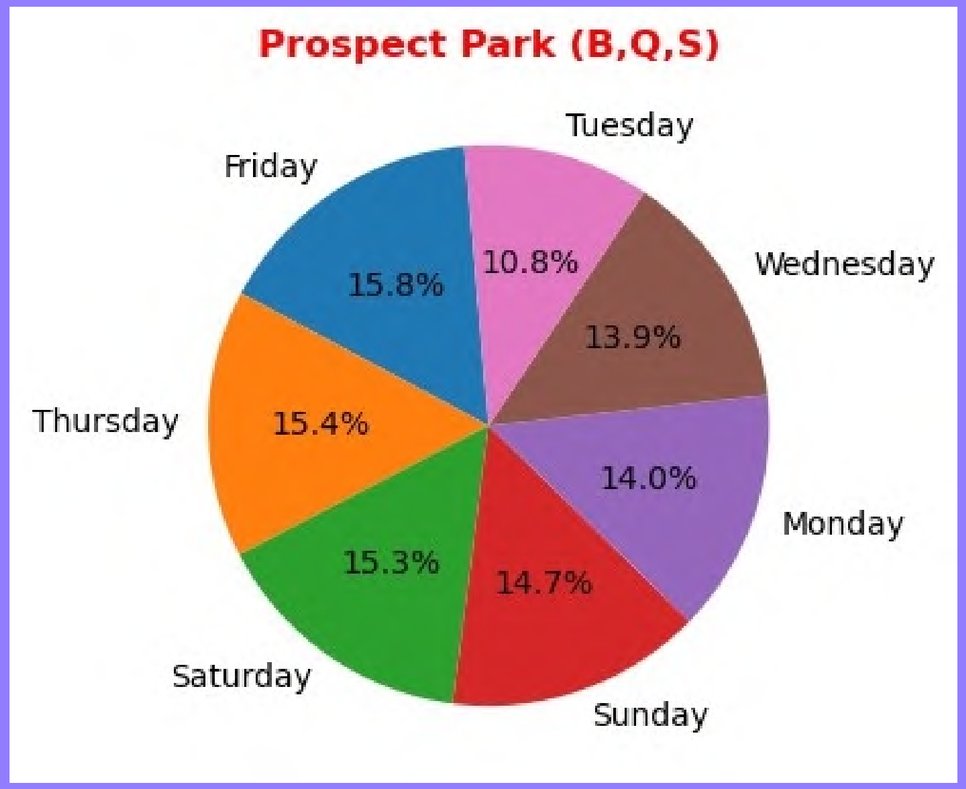
Prospect Park (B,Q,S) / Graphs



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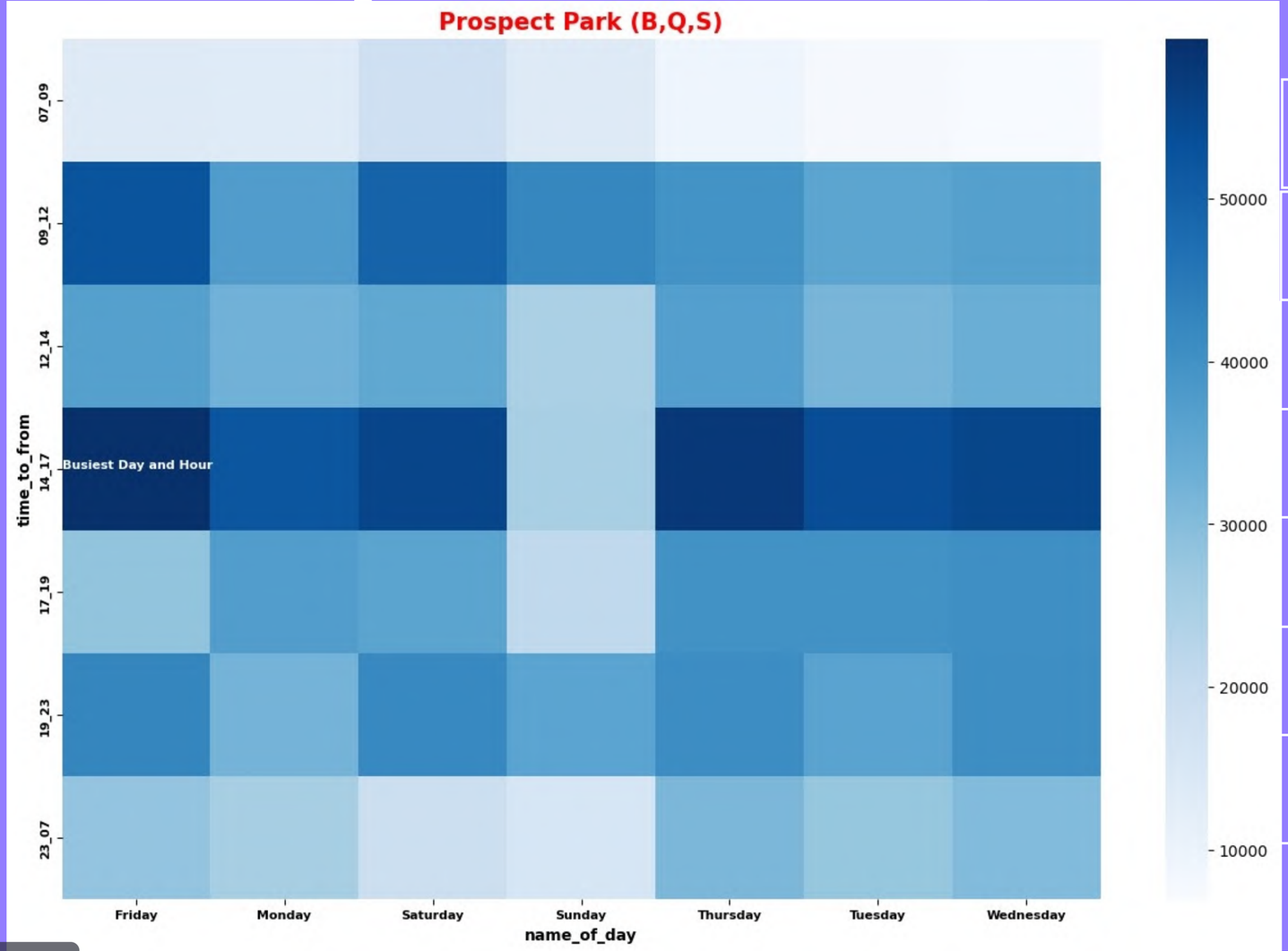
Prospect Park (B,Q,S) / Graphs



name_of_day	Friday	Monday	Saturday	Sunday	Thursday	Tuesday	Wednesday
07_09	13732	13499	17964	13684	9424	7744	6976
09_12	52496	37611	49424	42448	39664	35659	36777
12_14	36884	32785	35103	24632	36930	31631	33488
14_17	**59860**	52057	55652	24960	58067	53980	55492
17_19	28452	37536	35864	21156	39911	40017	40640
19_23	42560	31981	42080	35928	40968	36218	40837
23_07	28128	25201	18600	15660	31242	27749	30425

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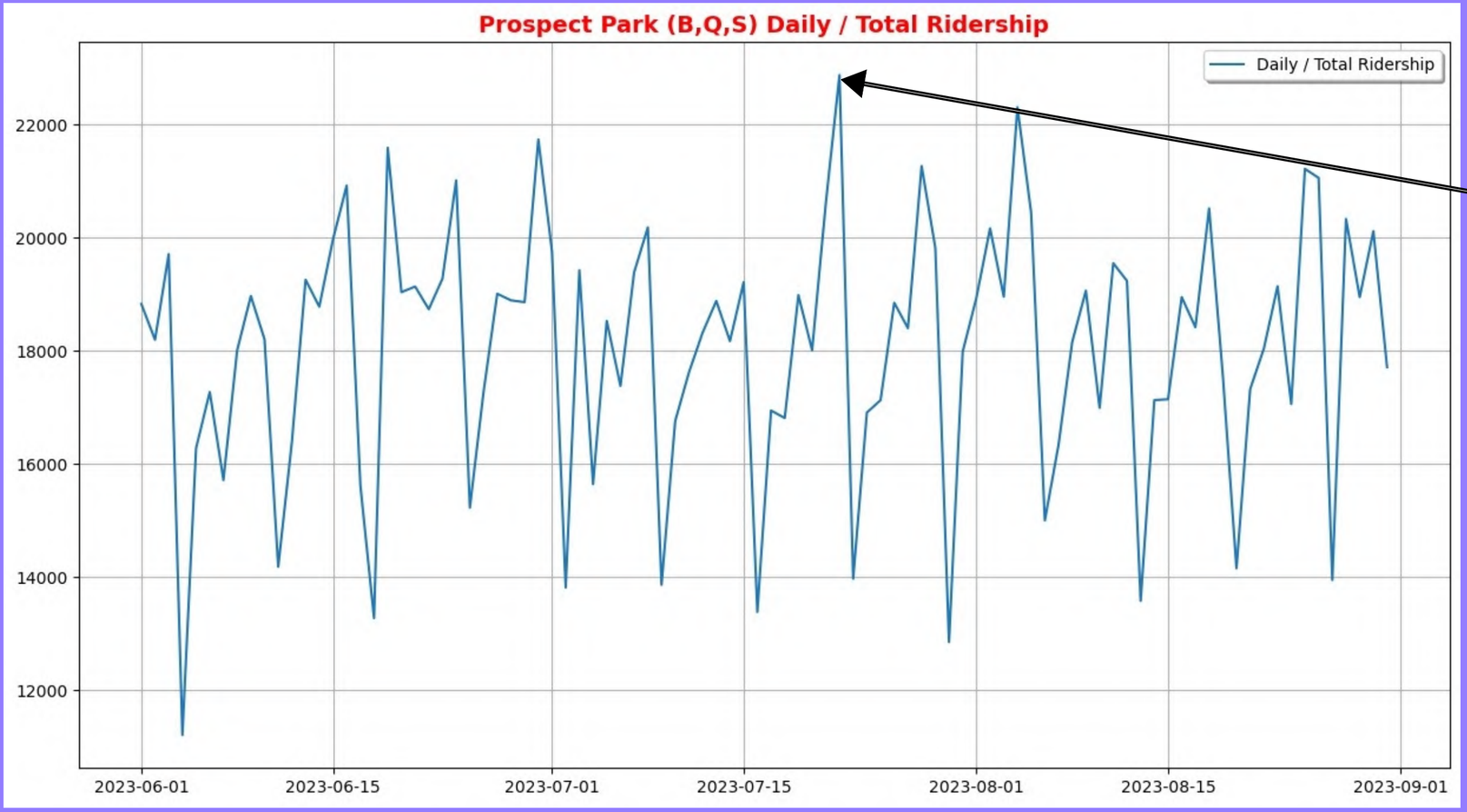
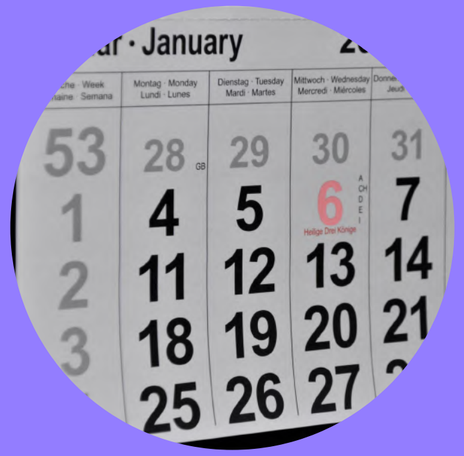
Prospect Park (B,Q,S) / Graphs



The Busiest Day of Prospect Park (B,Q,S)

Try Pitch

Conclusions & Recommendations



FRIDAY

15.4%

74.272

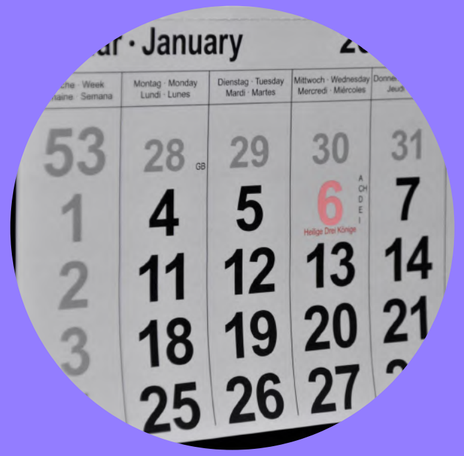
23.00 – 07.00

Jefferson St (L)

Busiest Station

Try Pitch

Conclusions & Recommendations



SATURDAY

15.3%

59.860

14.00 – 17.00

Prospect Park (B,Q,S)

Busiest Station

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FUTURE WORK

1. Exploring the areas where the population of women working in tech is high.

2. To increase the donation amount, we can use additional data to target individuals with high incomes.

3. Researching activities or events close to metro stations.

Try Pitch

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