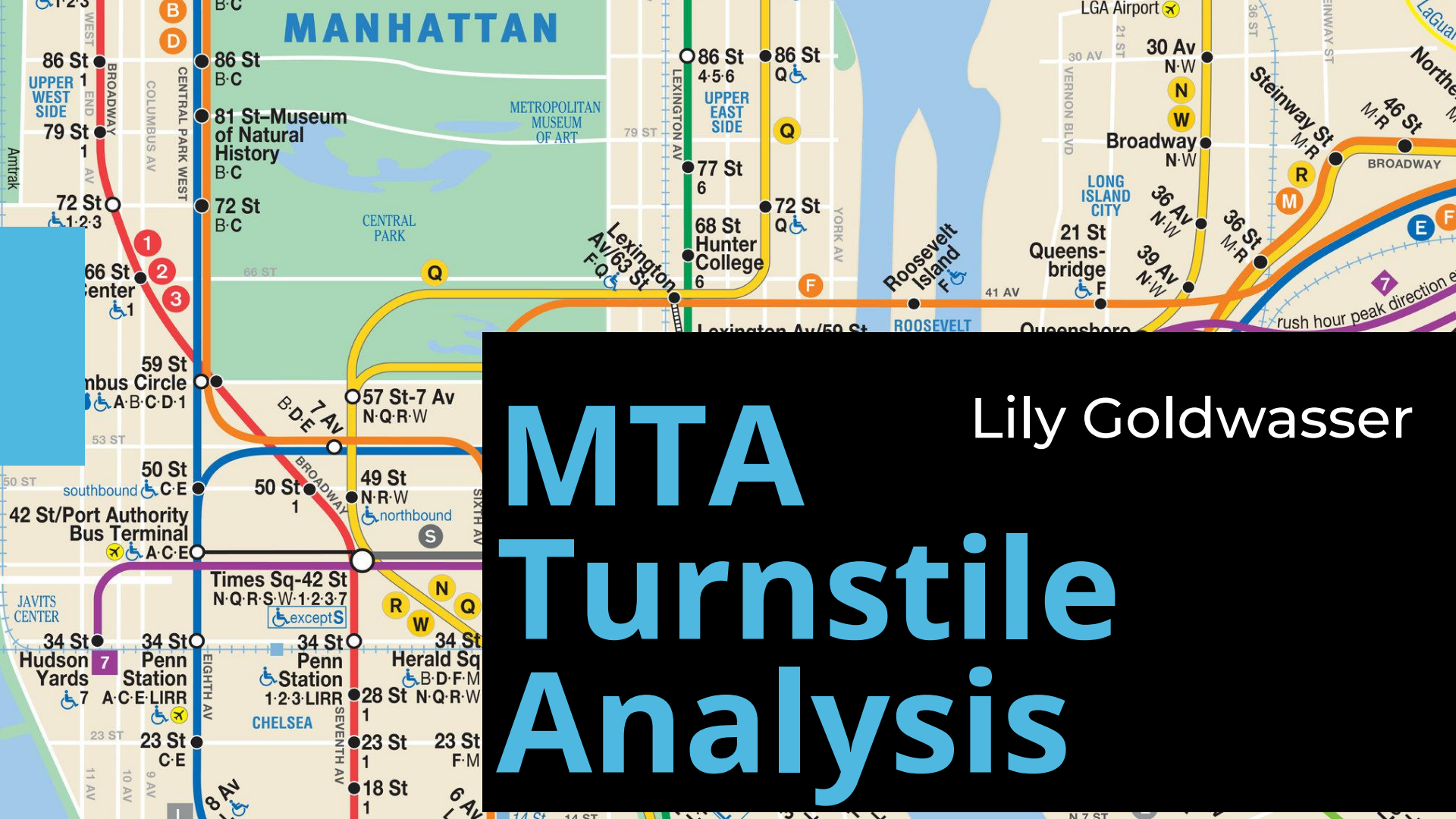


MTA Turnstile Analysis

Lily Goldwasser

Agenda

01 Overview

02 Methods

03 Results

04 Conclusions

05 Future Work

06 Appendix

Project Objective:

Use data analytics to provide NYC DOHMH with insight into MTA's busiest stations to anticipate Spring 2022 trends

Overview

Client

NYC Department of Public Health

Key Deliverables

Identify the busiest stations, busiest days of the week, and busiest overall weeks, and clinic names nearest to the top 3 busiest stations

Purpose

Help client prepare for Spring 2022 resource demands by looking at data from March - June 2021.

Methods & Tools

Data Used

- MTA turnstile data from March - June 2021, 4 pm - 8 pm Monday - Friday.
- NYC OpenData: NYC DOHMH

Data Integration & Storage

- Pandas
- SQLite

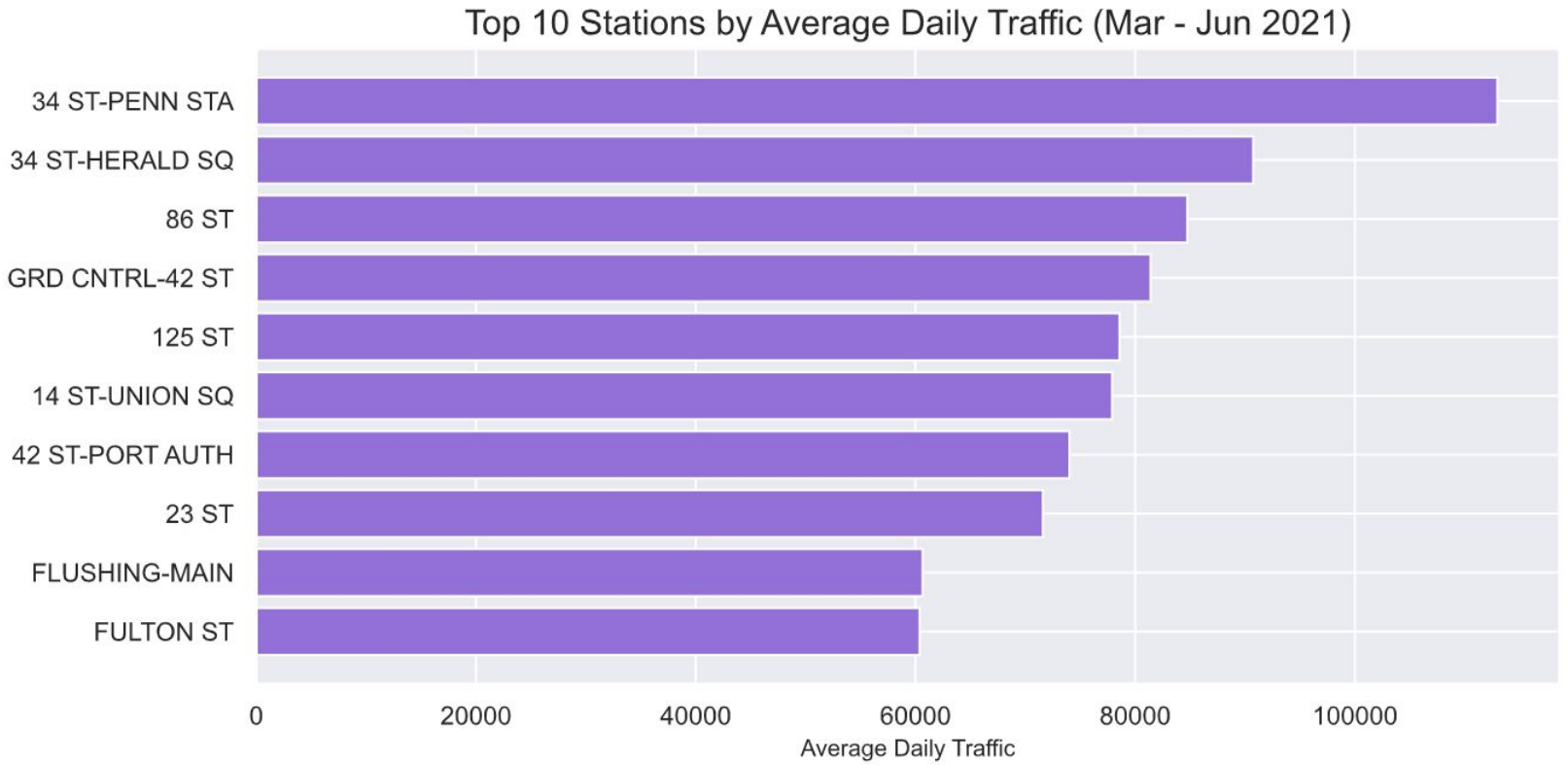
Project Timeline

- Python libraries (Pandas, Numpy)
- Removed extraneous data, reversed counters

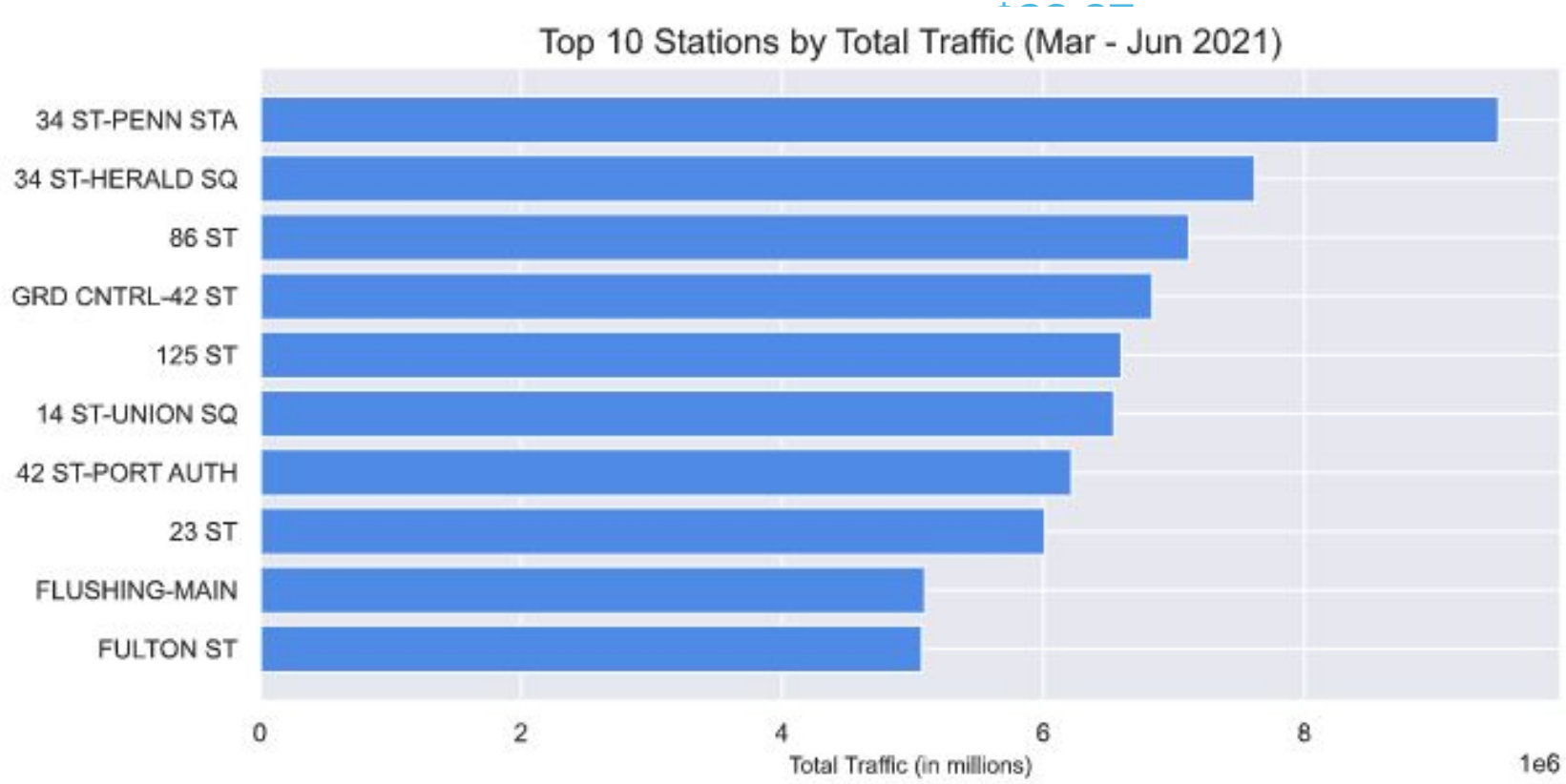
Presentation Tools

- Python libraries (Matplotlib, Seaborn, Geopy)
- Google Sheets (Geocode)

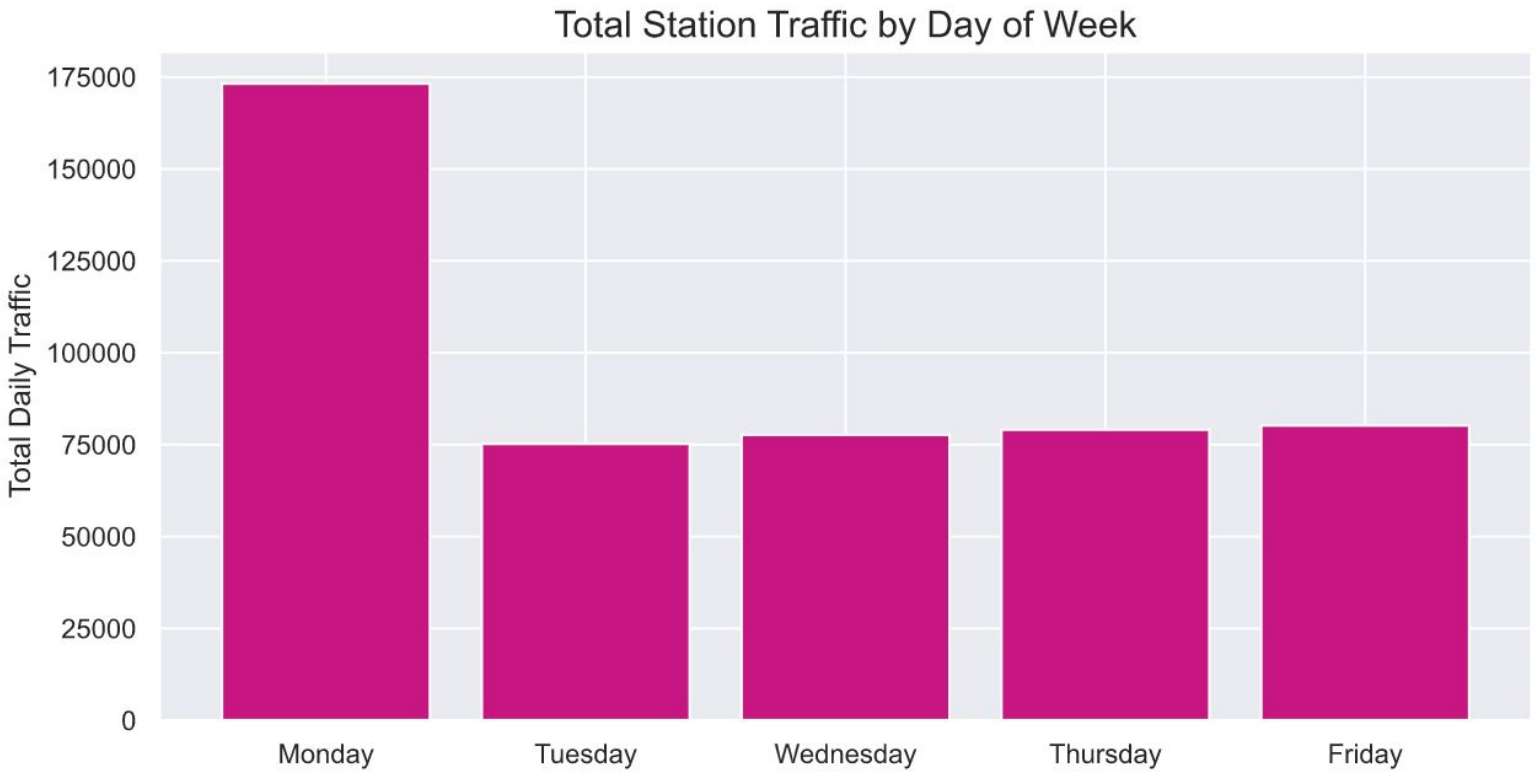
Average Daily Traffic



Total Traffic



Busiest Day of Week



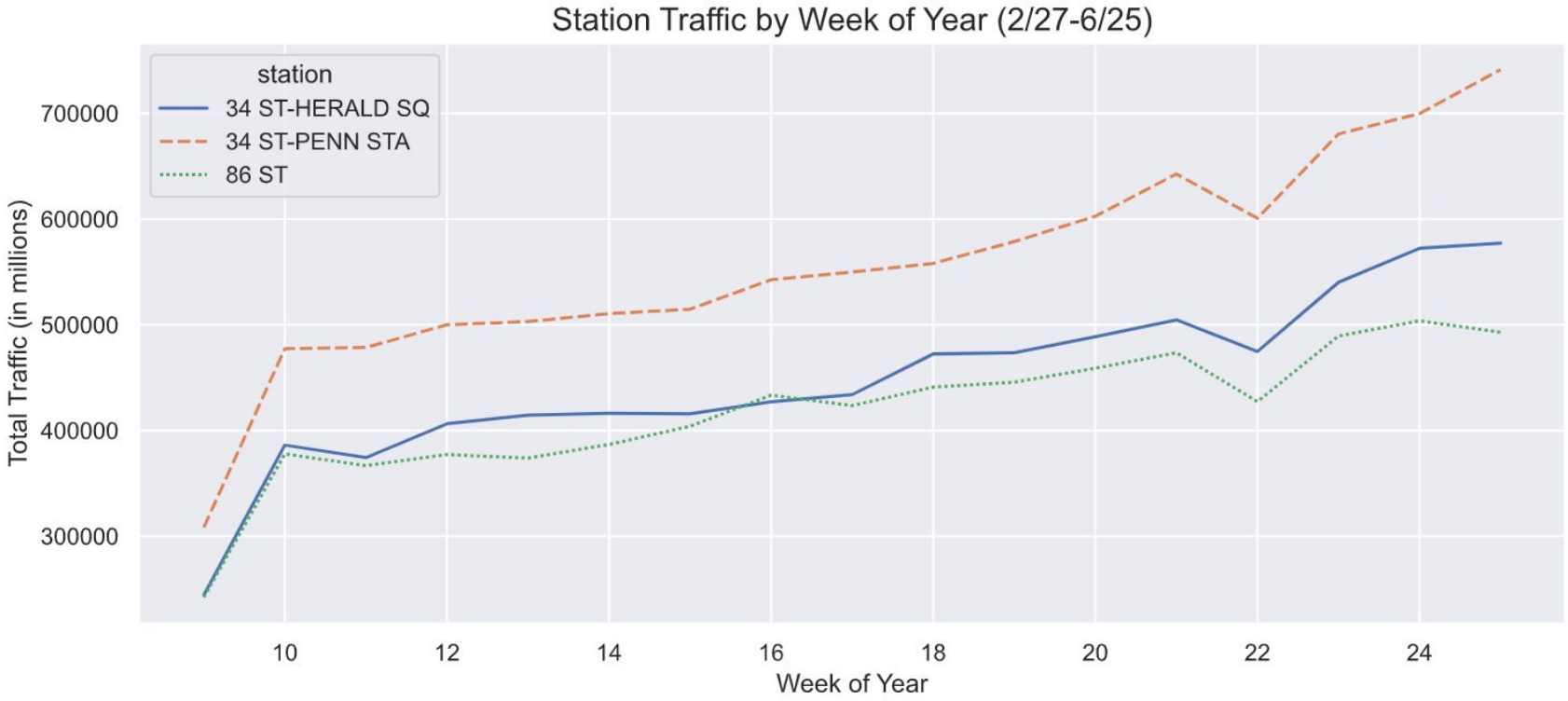
Top 3 Stations

34 ST-PENN STA

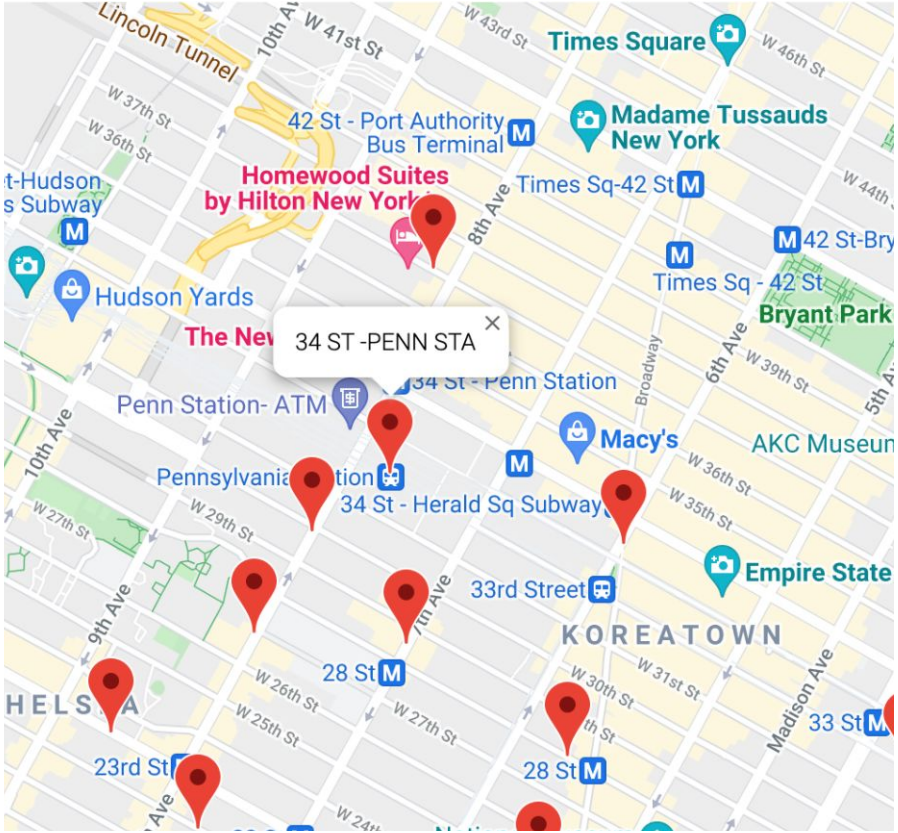
34 ST-HERALD SQ

86 ST

Weekly Spring Traffic Trends



Clinics closest to 34 ST -PENN STA

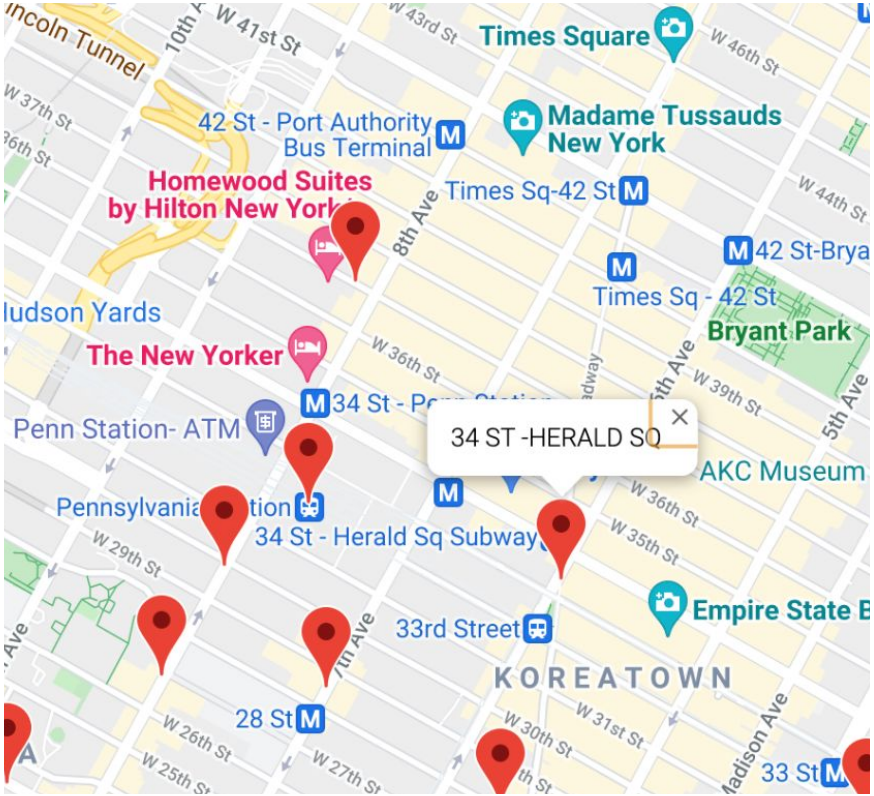


HASA Center #24 Amsterdam

Oasis Latino LGBTS Wellness Center

Housing Works Positive Health Project

Clinics closest to 34 ST - HERALD SQ

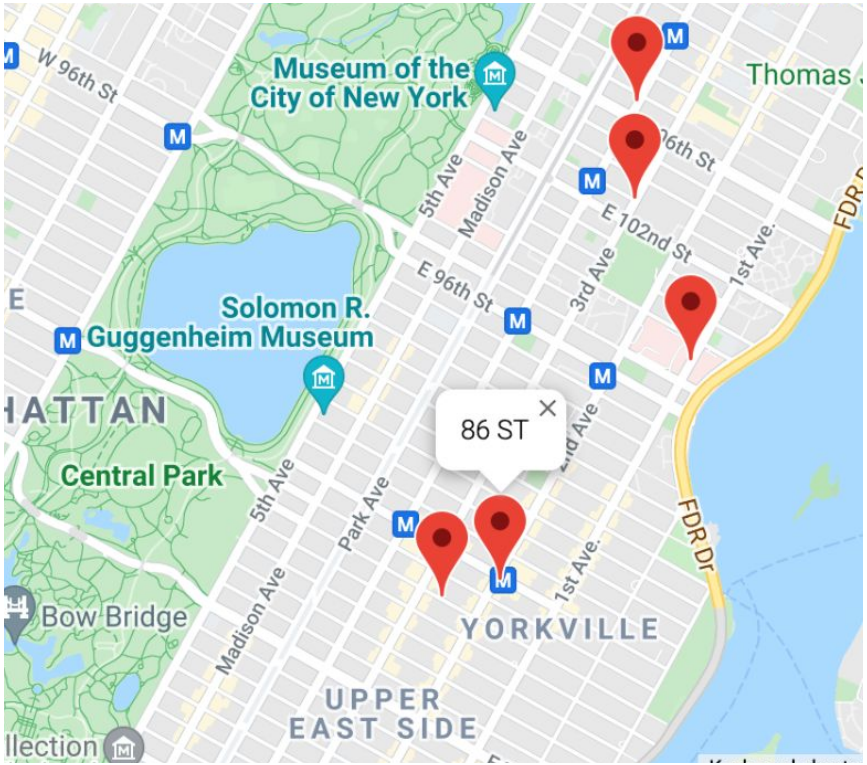


A&J LINGERIE

Oasis Latino LGBTS Wellness Center

Housing Works Positive Health Project

Clinics closest to 86 ST



Brandy's Piano Bar

Metropolitan Medical Center Primary Care Facility

Blake Pharmacy

Conclusions

When:

DAY OF WEEK
Anticipate the most traffic in 2022 on Mondays

WEEKS OF YEAR:
Anticipate the most Spring traffic in weeks 23-25 of 2022 (June 6 - June 25)

Where:

86 ST
Brandy's Piano Bar
Metropolitan Medical Center Primary Care Facility
Blake Pharmacy

34 ST PENN STA
HASA Center #24 Amsterdam
Oasis Latino LGBTS Wellness Center
Housing Works Positive Health Project

34 ST HERALD SQ
A&J LINGERIE
Oasis Latino LGBTS Wellness Center
Housing Works Positive Health Project

Future Work

- Top Stations per Borough
- Seasonal traffic
- Later hours/ weekends

Appendix

Photos

- https://stackoverflow.com/questions/27607092/get-city-state-country-from-latitude-and-longitude-in-google-sheets
- https://app.awesome-table.com/-MtM9YScH8ozcpJj_SbJ/view
- https://data.cityofnewyork.us/Health/NYC-Condom-Availability-Program-HIV-condom-distrib/4kpn-sezh

Thanks!

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