



SparkFit Wellness Community Inc.

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Background

- SparkFit Wellness Community Inc. wants to open a new personal training studio that is StrongFirst certified in New York City
- Need to ensure new location is not near already existing StrongFirst certified gyms
- Needs to be in high trafficked area



Goal

Identify optimal areas in New York City for SparkFit to consider based on high subway commuter volumes.

These areas need to factor in relation to preexisting certified gyms in the area.

Method

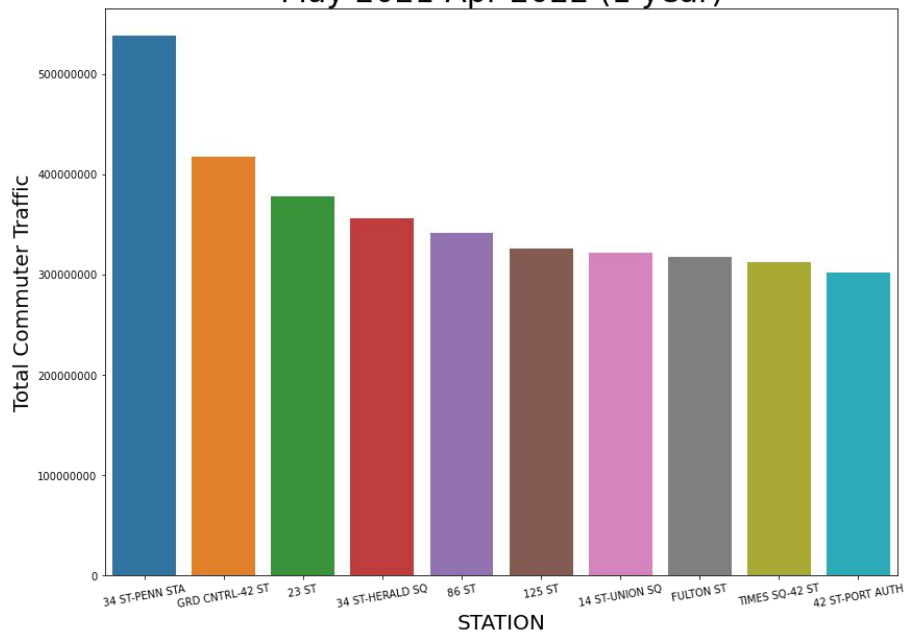


1. May 2021-Apr 2022 MTA Turnstile data: 11,125,116 records
2. Explore *top ten most trafficked stations* based on daily entries and exits
3. Explore seasonality differences (*3 months vs 12 months of data*)
4. Explore day of week differences (*total traffic based on day of week, order of top ten stations based on day of week*)
5. Location of subway stations acquired via the Google Maps API
6. Location of gyms acquired via StrongFirst gym registry
7. Google Maps used for visualization tool, zip code distance calculator, various python packages (NumPy, Pandas, Matplotlib, Seaborn, SQLAlchemy)

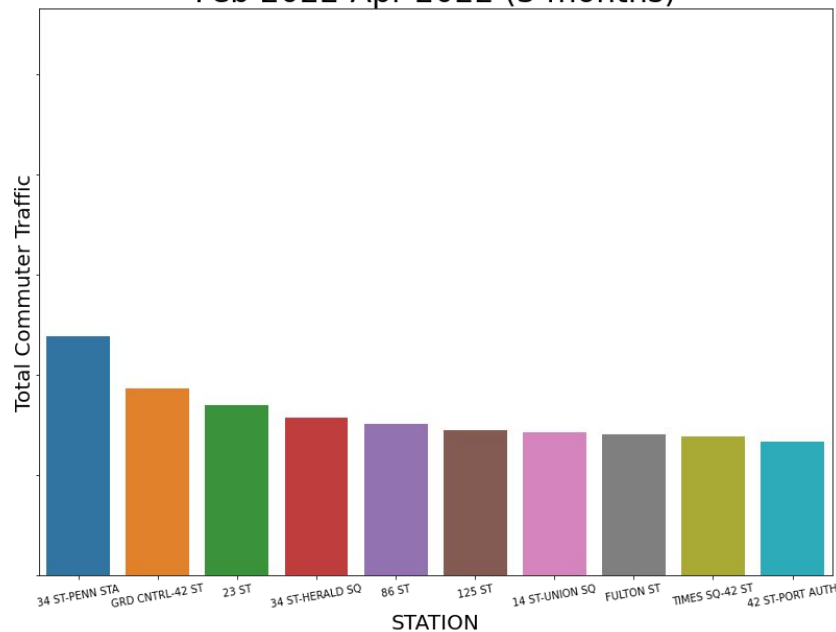
Top ten busiest stations did not change May 2021-Apr 2022 vs Feb 2022-Apr 2022

(Only three months of data will be used)

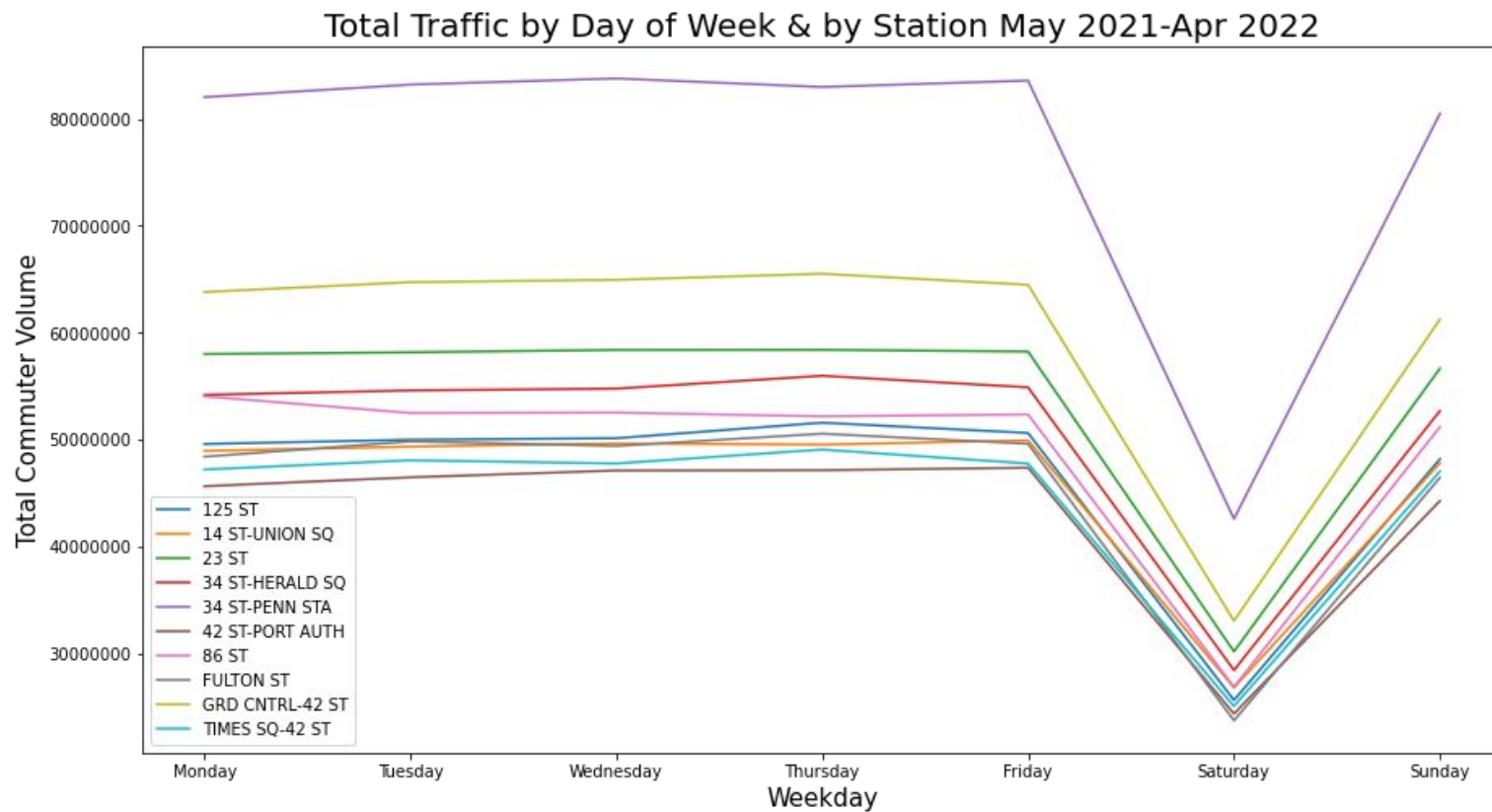
Top 10 most trafficked NYC Subway Stations
May 2021-Apr 2022 (1 year)



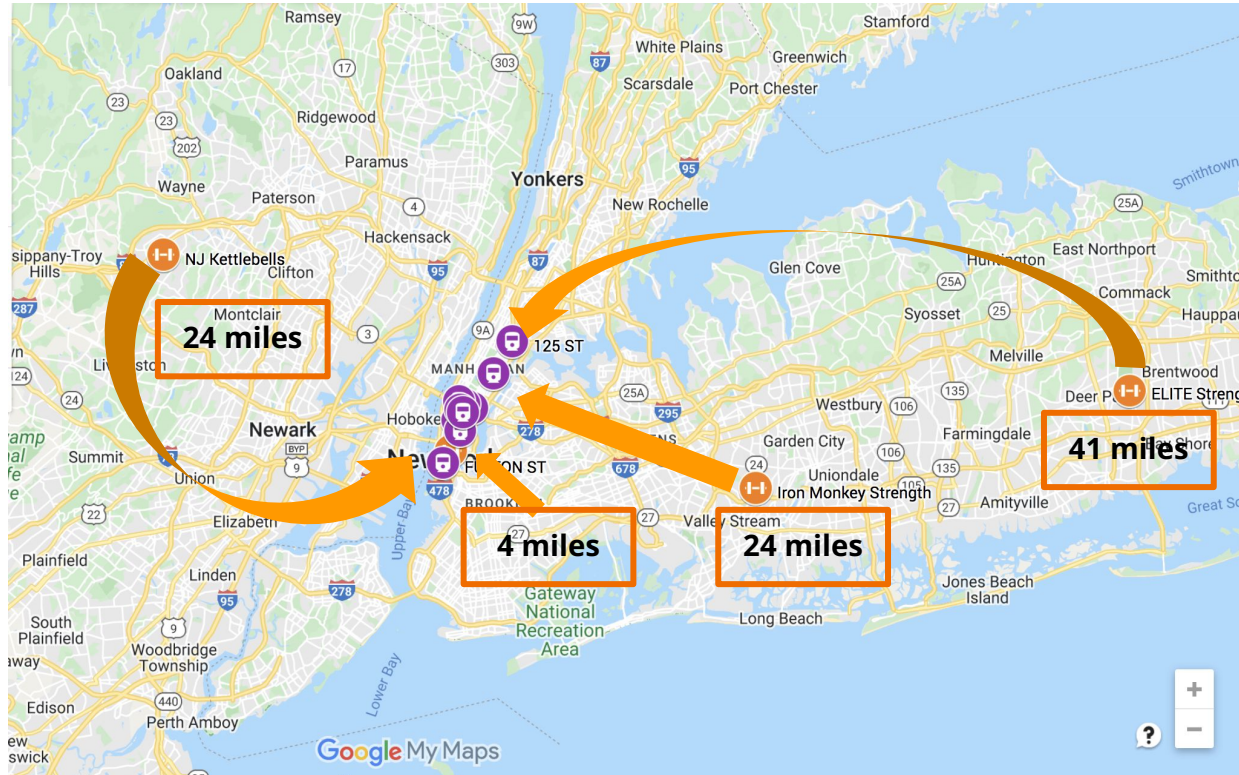
Feb 2022-Apr 2022 (3 months)



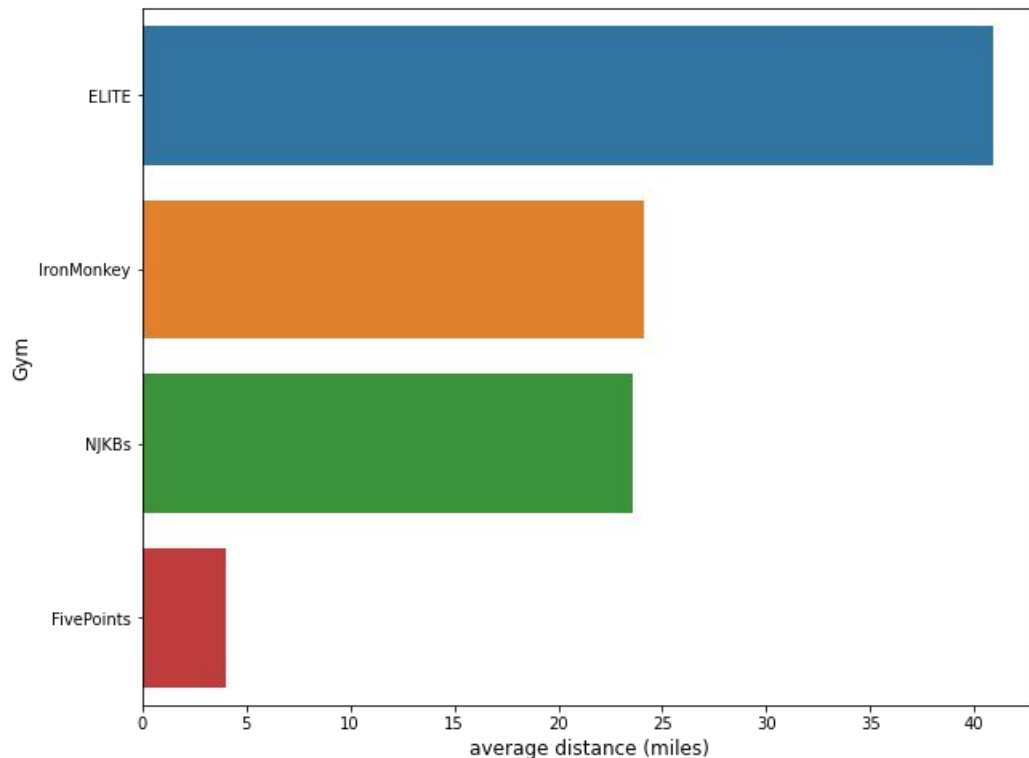
Results



Average distance between gyms and top 10 busiest stations

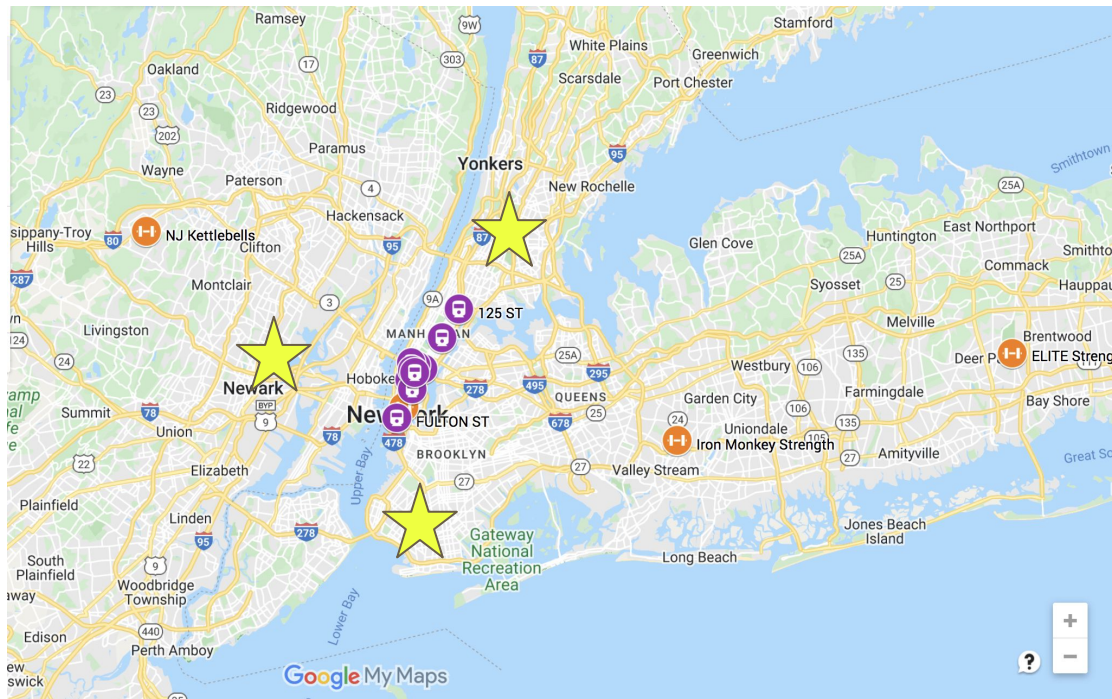


Average distance between gyms and top 10 busiest stations



Conclusion

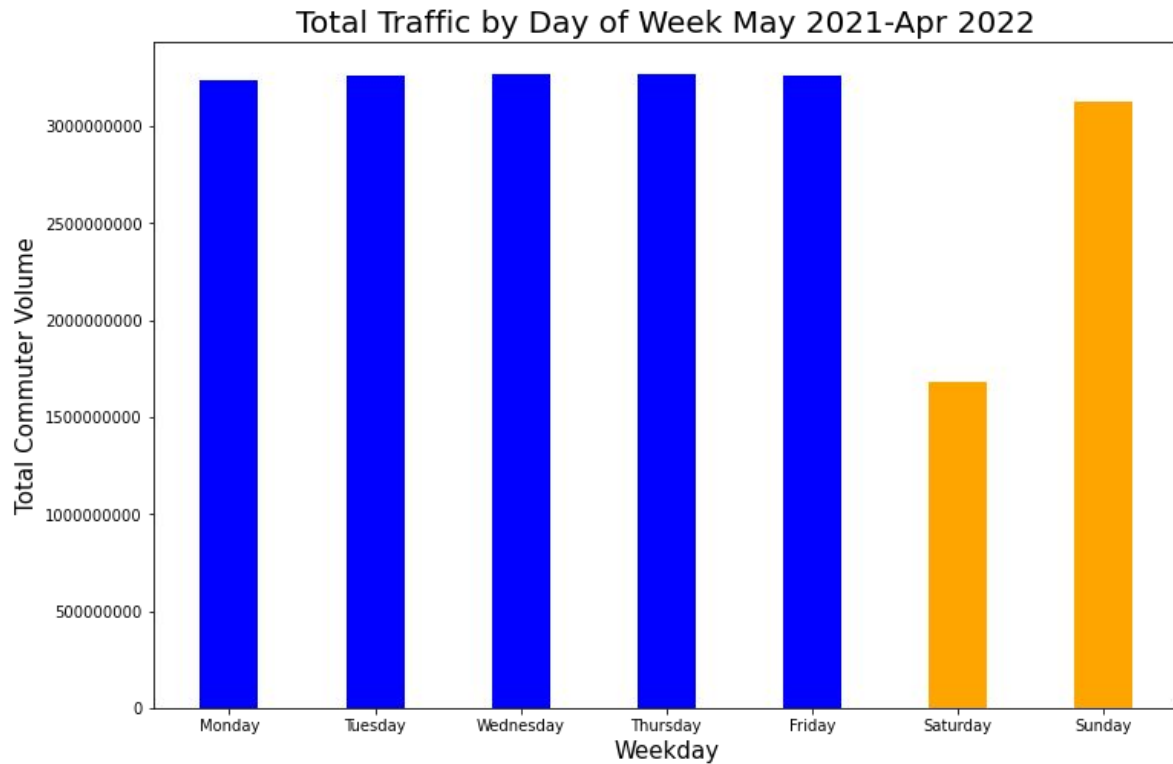
- Bronx, Brooklyn, or Staten Island would be areas to consider in NY
- Outside of NY, mid-east NJ
- Other factors to consider:
 - Community demographics
 - Market demand
 - Real estate
 - Business of Five Points Academy gym



Future Work

- Explore geo visualizations within Python or Tableau
- Extract coordinates as locators vice zip codes
- Explore seasonality more thoroughly
- Deeper analysis into day of week traffic volumes
- Improved y-axis units of measurement labels

Appendix



Appendix

