

WomenTechWomenYes!

Leveraging MTA ridership data for Annual Gala
outreach strategy

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Agenda

Problem Statement

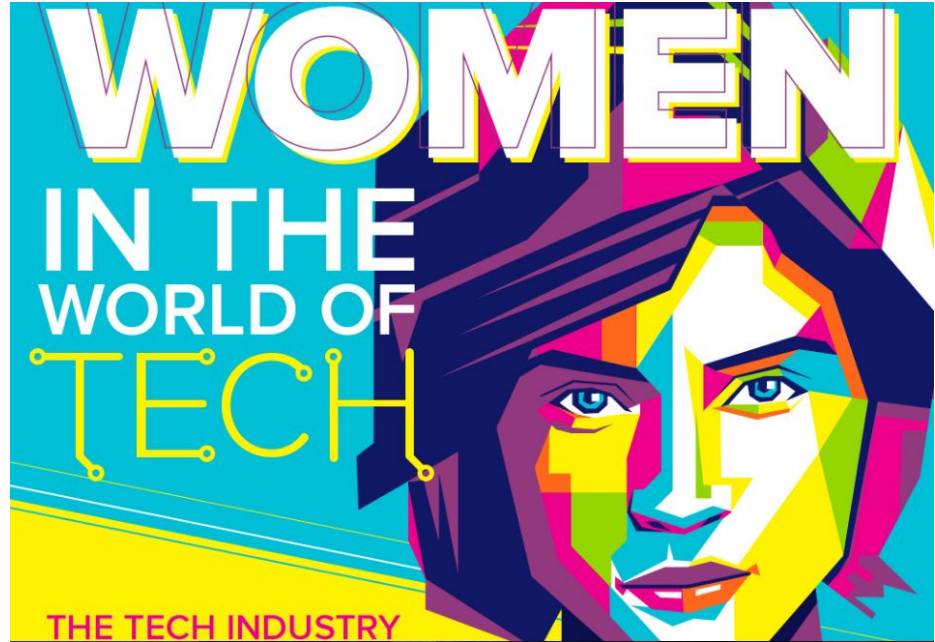
Study Expectations

Methodology and Approach

Results and Analysis

Conclusions

Appendix



Problem Statement

- “WomenTechWomenYes (WTWY) has an annual gala at the beginning of the summer each year...”
- “...place street teams at entrances to subway stations...”
- “...optimize the placement of our street teams, such that we can gather the most signatures, ideally from those who will attend the gala and contribute to our cause...”

Problem Statement

- Find the best places to solicit signatures from people who would be interested in attending the gala
- 'Best' places would return the most signatures



Primary Data Source - MTA Turnstile Data

- 2010 May 05 to 2020 March 28 records
 - ~10 years of data!
- 4 hour resolution
 - HD number sets!
- C/A, UNIT , SCP, STATION, LINENAME, DIVISION, DATE , TIME, DESC, ENTRIES, EXITS
 - So much information!



Time Limitations

Problems:

- Only few days to perform study
- Data set too large to comprehend
wholistically

Solution:

- Shrink the scope
- Eliminate weak leads
- Make reasonable assumptions

Reasonable Assumptions - Demographics

- Target demographic groups include:
 - Women
 - Tech employees
 - Women tech employees
- Women \cup Tech employees

Background Research - Demographics

- What are the chances of meeting women?
 - 54% of population in NYC are women¹
- What are the chances of meeting tech employees?
 - 4.55 million employed²
 - 142,600 tech sector jobs²
- 3.13% of working population employed in tech

Sources:

1. US Census, 2018
2. NYC Employment Trends, Office of the New York State Comptroller, 2019

Reasonable Assumption - Proximity

Background info:

- 54% women
- 3.13% tech employees

Focal Point:

- Investigate areas where tech employees are concentrated

Background Research - Proximity

- Is there a large concentration of tech companies?
 - Manhattan
 - Brooklyn
- Where are large tech companies located?
 - Google, Compass...etc
 - Around 14th St station



NYC Startups Map:

<https://www.google.com/maps/d/embed?mid=1LNqQXjRExROga9ckEww4xoNCHok&hl=en>

Proximity to Transit

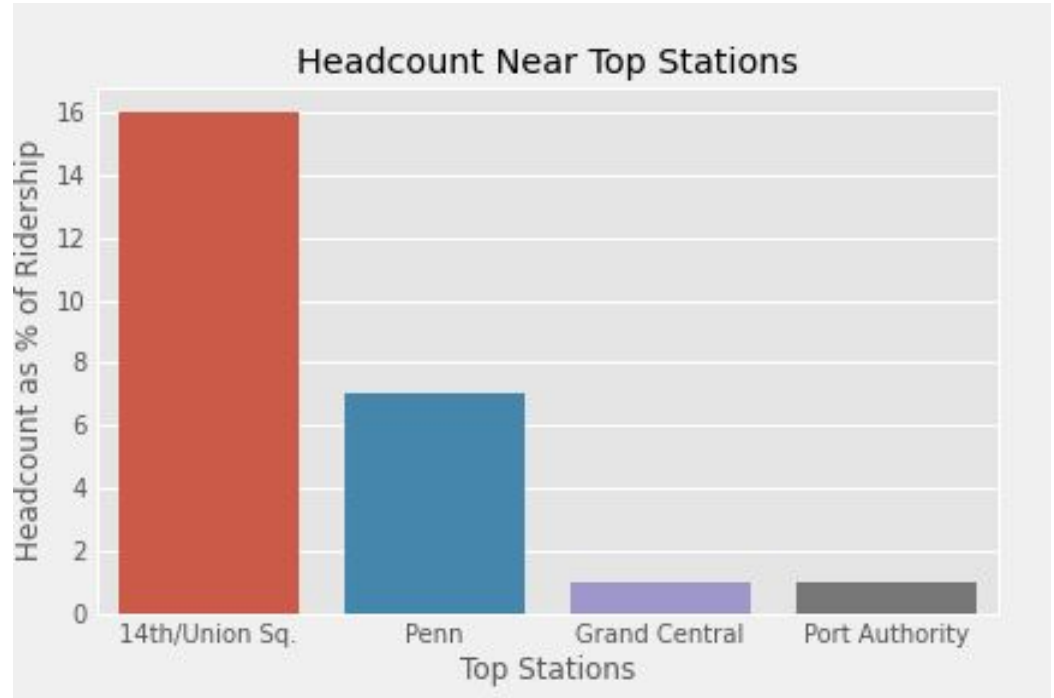
Google and **Facebook** are both near Union Square.

Amazon is near Penn Station, but Penn Station is very busy.

Salesforce and **Adobe** are near midtown stations.

Source:

flatironschool.com/blog/best-tech-companies-nyc



MTA Turnstile Focus Points

- What stations have the most traffic?
- Are weekdays or weekends better?

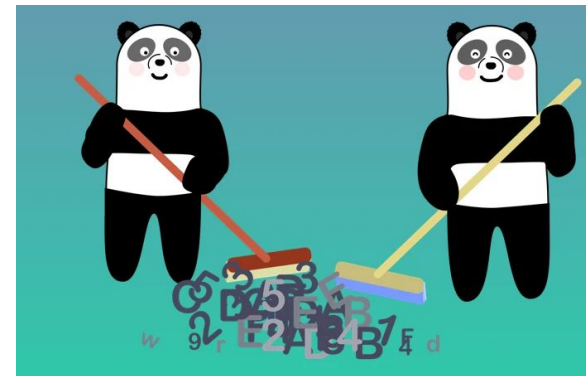


Data Cleaning And Filtering

Using Pandas for organizing

Using Numpy for calculations

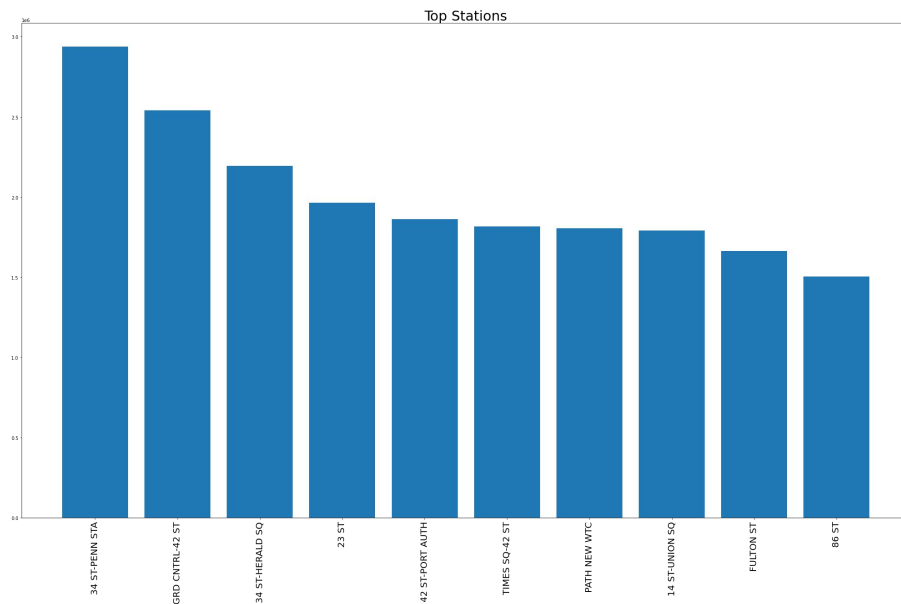
Using Matplotlib for visualization



Study Conclusion

Most active stations between 05/18/19 and 06/07/19:

1. 34 St Penn Station
2. Grand Central 42 St
3. 34 St Herald Sq
4. 23 St
5. 42 St Port Auth



Result Validation

Our most active stations:

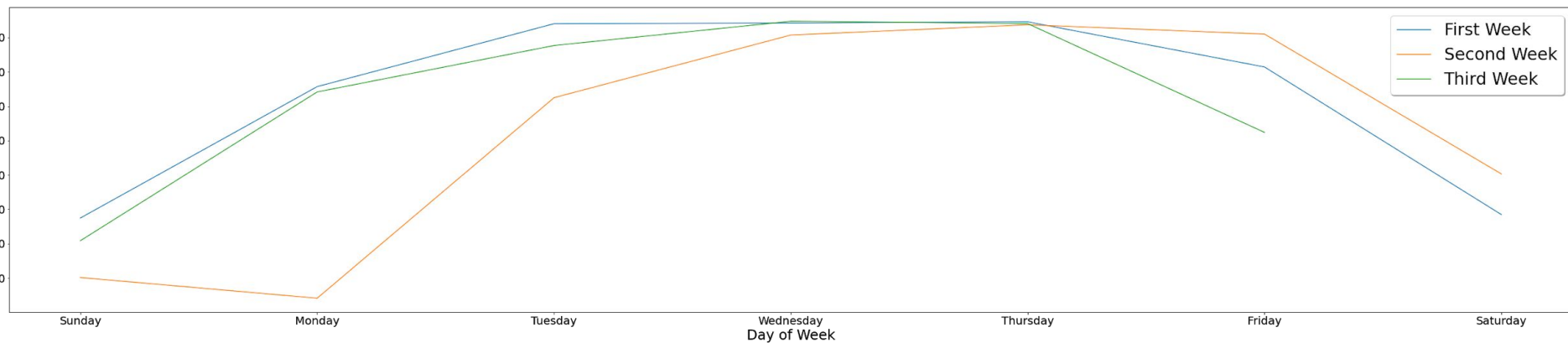
1. **34 St Penn Station**
2. **Grand Central 42 St**
3. **34 St Herald Sq**
4. 23 St
5. 42 St Port Auth
6. **Time Sq 42 St**
7. World Trade Center
8. **14 St Union Sq**

MTA's official most active stations:

1. Time Sq 42 St
2. Grand Central 42 St
3. 34 St Herald Sq
4. 14 St Union Sq
5. 34 St Penn Station

source: <http://web.mta.info/nyct/facts/ffsubway.htm>

Weeks of May for 14 St Station



- Drop in ridership over weekends

Recommendation to WTWY

Place your workers at:

- 14th St Station:
 - Large amount of tech companies
 - Top 10 in traffic
- During weekdays
 - Higher ridership
- Two to six weeks before the gala
 - Allow time to RVSP



Startup Ecosystem

Link: <https://www.quora.com/What-is-the-best-neighborhood-for-a-new-startup-in-NYC>

What is the best neighborhood for a new startup in NYC?

This question previously had details. They are now in a comment.

 Answer  Follow · 1  Request  1     

3 Answers



Nathan Sukonik, works at Startups in New York City

Answered Mar 26, 2017

I would argue that the best place would be Chelsea or Downtown Manhattan. Lower Manhattan is also a decent option. I've worked at a few startups over the years and I'll rank the locations for you:


1. DecisionDesk, 17th street between 5th and 6th. Lower Chelsea: Great location but you'd be better off closer to Chelsea Market/ art galleries and Highline. Best choice if you want proximity to other startups.
2. Shindig, 655 Broadway, not far from Broadway and Lafayette. Noho: Amazing area, good bars\U0001f525 tech scene.
3. Whisk (acquired by Deem) 43rd Street and 7th, 1501 Broadway. Times Square: Not a great area, but major benefit is proximity to AlleyNYC and while I was there I worked a bunch in Brooklyn, so maybe Sheepshead Bay? lol
4. Dwnld.me: Canal street area: You'd think it'd be awesome but the area is not so hot, you'd be better off near Wall street or possibly near Two Bridges/ lower Chinatown.



David S. Rose, lives in New York City

Answered Mar 21, 2017 · Upvoted by David Friedman, lives in New York City



The heart of the NYC startup scene is centered around the Silicon Alley/Flatiron/NoMad district in Manhattan, but because New York City is so condensed, any place you locate ultimately has access to a similar market. As of 2017, here are the major startup neighborhoods in New York, as illustrated on the startup map from [Digital.NYC](#) .