



Dock Congestion

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Introduction



Everyday, thousands of people commute to work.

People are deterred from using CitiBike because congestion and unavailability at docks is making CitiBike an inconvenient experience.

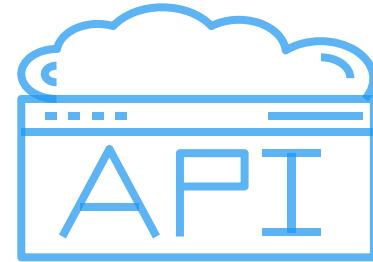
How can we make the CitiBike experience as effortless and seamless as possible?

Problem:



Bike distribution is
unbalanced.

- People are taking more one-way rides
- People are going to the same places (hotspots)
- Docks are often extremely full or empty



Live Data Feed - Algorithmic Process:

- Created our own Occupancy Rate Factor to normalize data
- Utilized Pandas to create histograms and charts
- Data displayed in Google Data Studio
- Compounded past data into a local database

Most docks are:

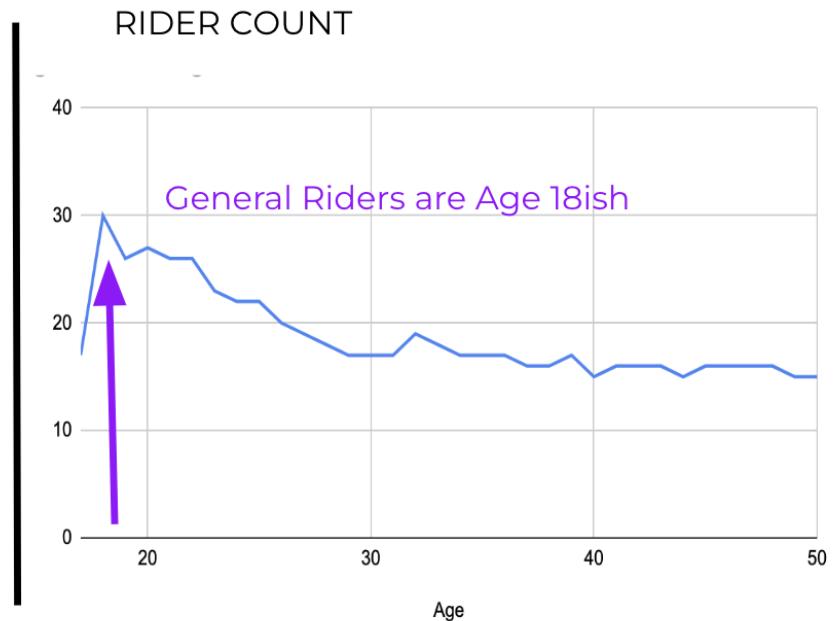
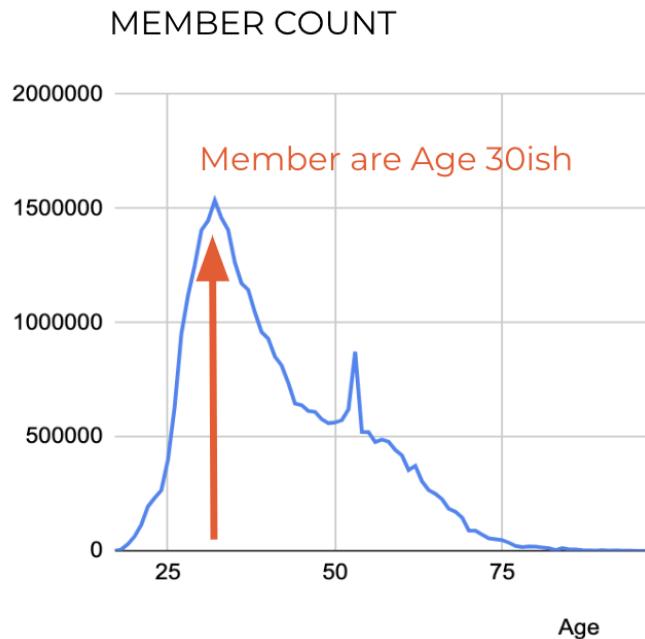


<90%
Occupied

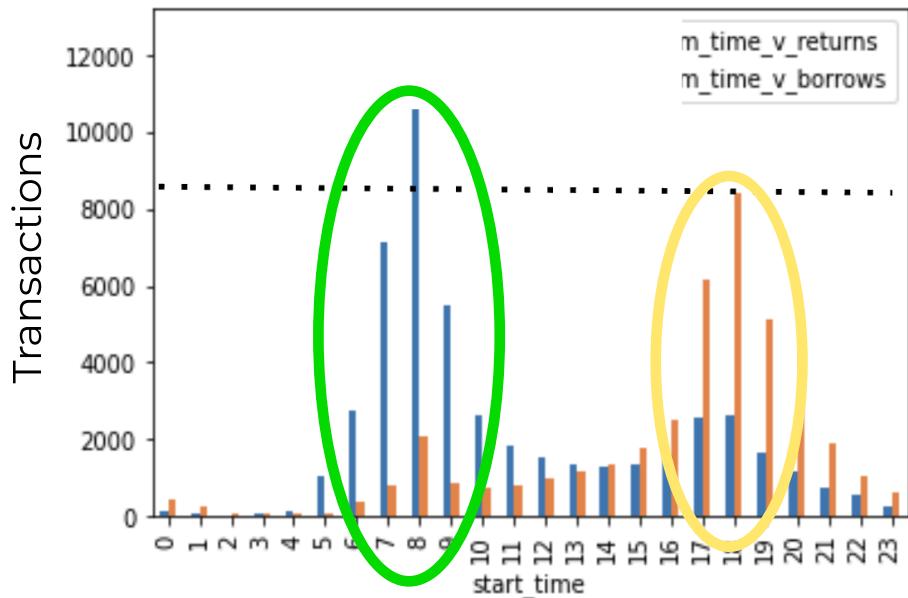
>20%
Occupied

Rider Segmentation

Average CitiBike member vs. the average Citibike rider?



A closer look: Grove Street Path Dock



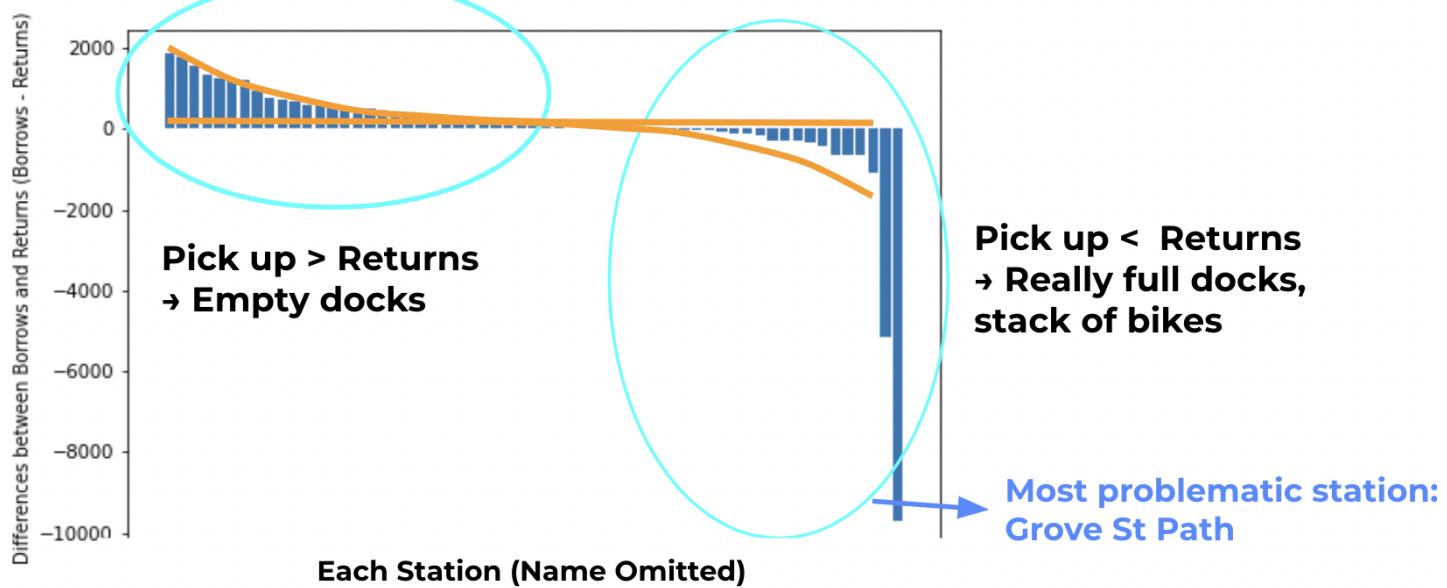
Morning bike returns spike to 10,000.

Afternoon bike rentals spikes over 2000 transactions lower

Bike are **not** being re-distributed

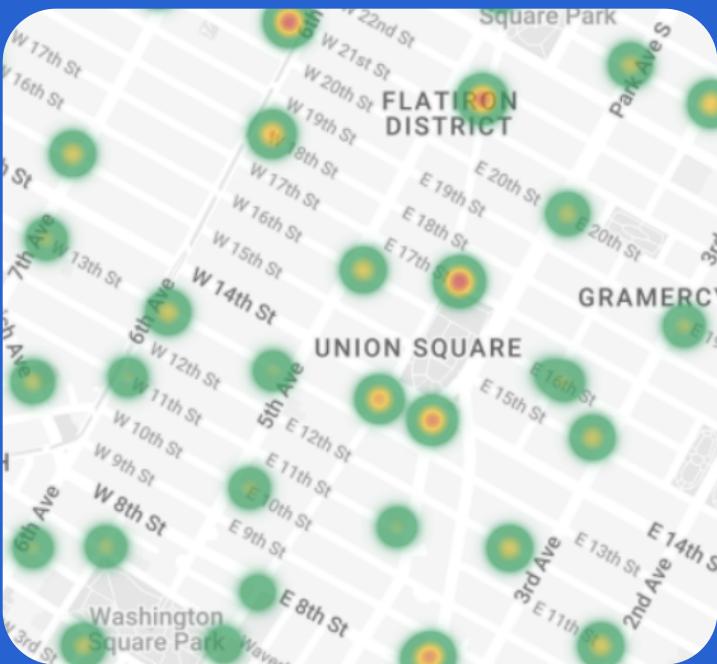
Normalization of Data

Variable diff = Rentals - Returns (per station)

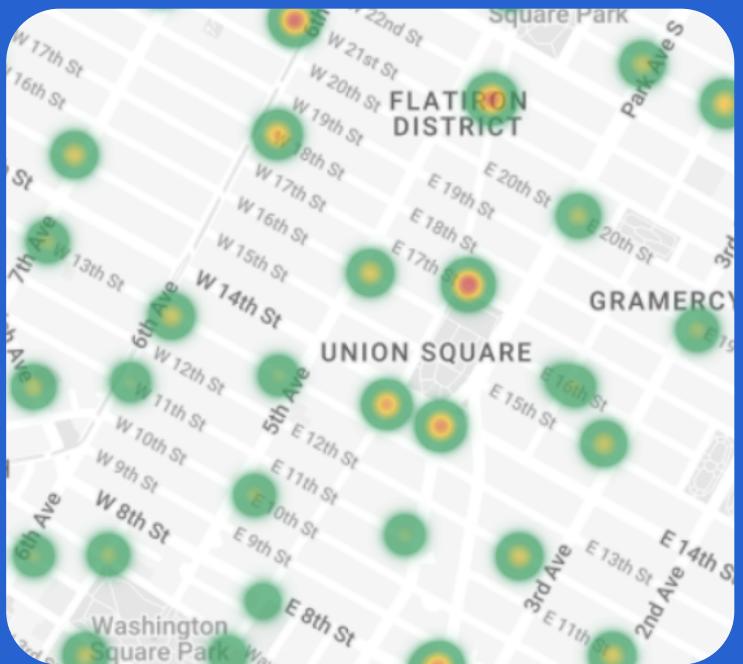


Heat Map - Bike Concentration Remains the same through out day

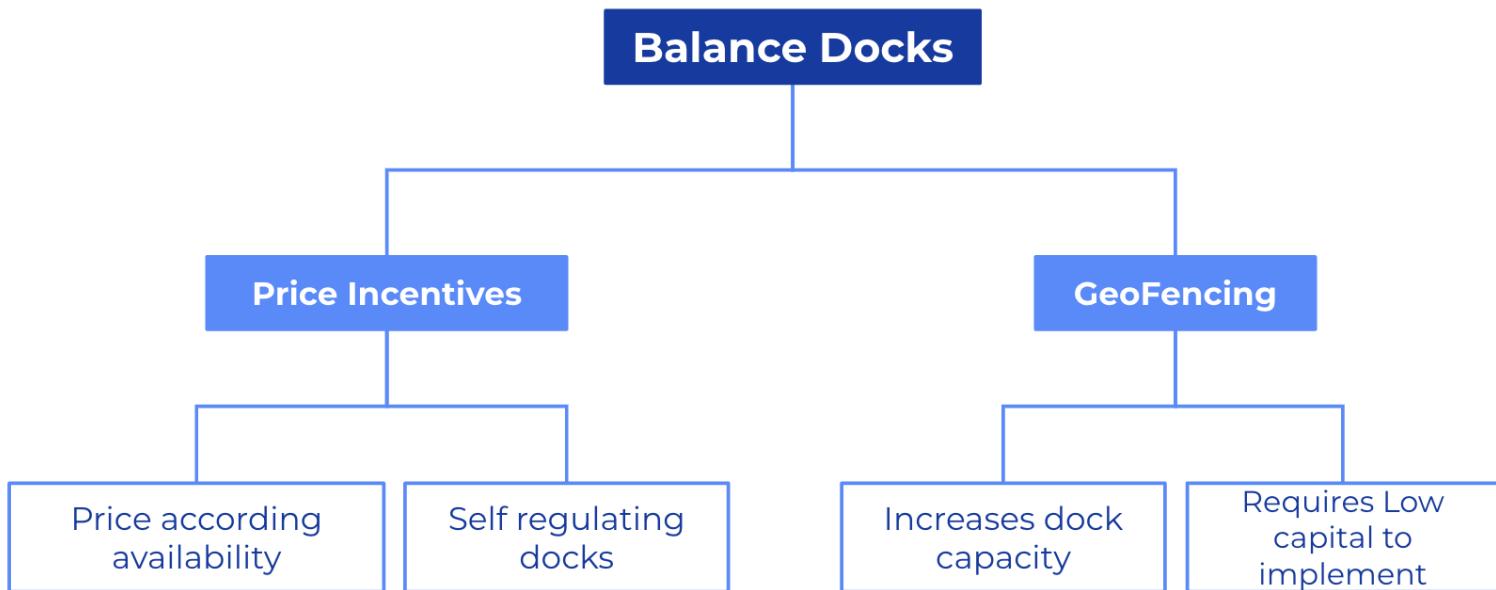
9AM



9PM

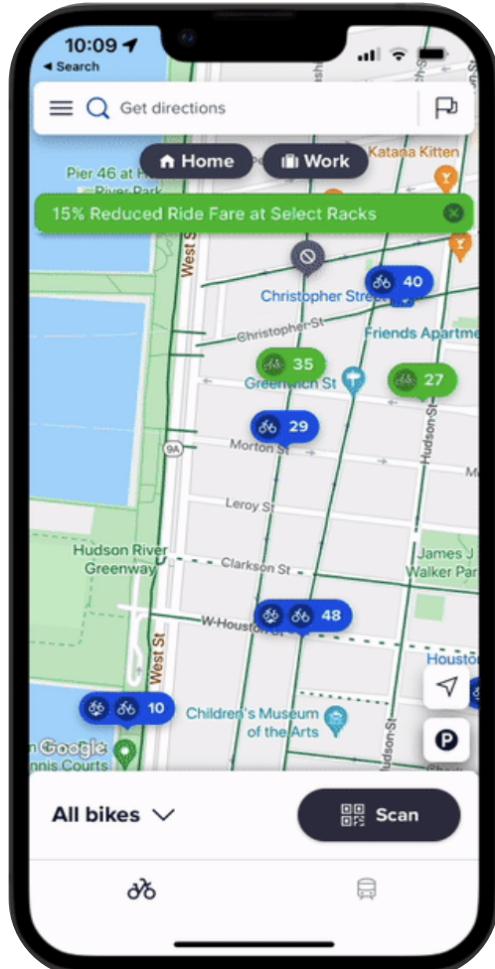


Solution



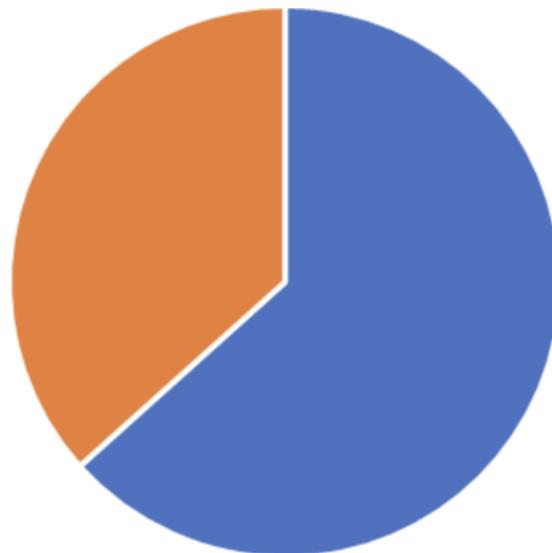
Our Solution: Incentivized Routes!

- Provide monetary incentives to CitiBike users to dock at low occupancy docks
- Self regulate bikes and prevent congestion at the docks.
- Increase accessibility into transport deserts by motivating people to take a CitiBike there



Price Model - Survey Money vs Rewards?

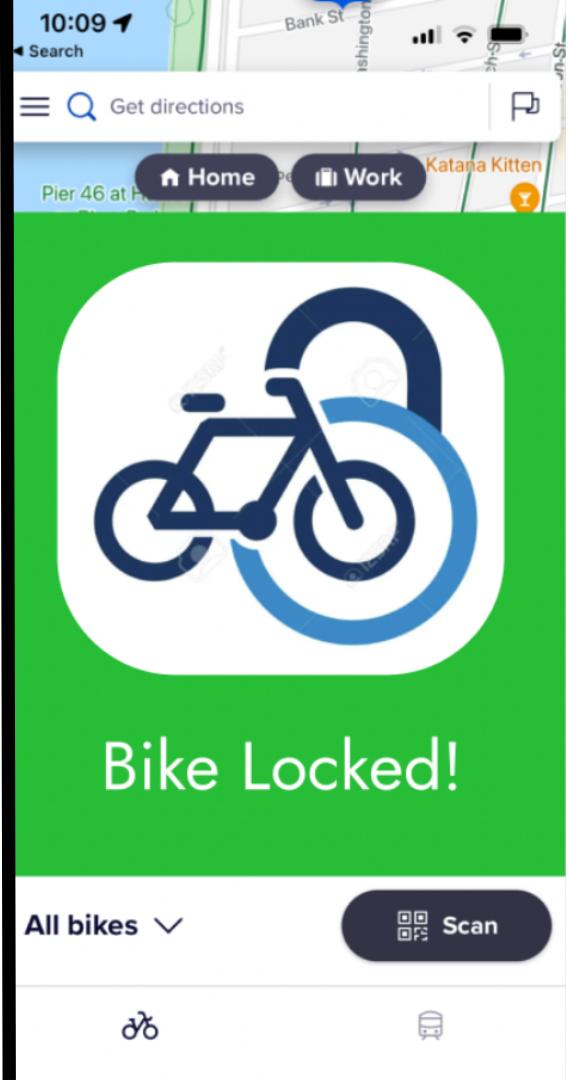
What Customers Value When Trying New Product



■ Fair price ■ Rewards

GeoFencing Technology

- Provide more space at docking locations
- Utilize existing space in a more cost effective way and increase capacity
- Provide an alternative bike locking mechanism
- Effectiveness: personal experience



Target KPI's



- 40% Growth in number of members
- Lower age of CitiBike Member by 5 years
- Rollout Price-Incentive feature to 40% users in 6 months (performance-based)
- 75% Occupants at GeoFenced docks

Thank You!

Questions?

