Data

- Citi Bike data pulled from CitiBike's public data (https://s3.amazonaws.com/tripdata/index.html) includes anonymized data about each recorded bike ride such as where rides start (latitude, longitude, name, time) and end (latitude, longitude, name, time) as well as trip duration. Additional data is available for some years but not leverage in this analysis.
- Individual files downloaded locally for 2018 through 2022 and processed using the jupyter notebook file included in my Tableau analysis workspace to create a single source file
  - Citi Bike's changed the data format between Jan 2021 and Feb 2021 so the script runs separately for Jan 2018 – Jan 2021 and Feb 2021 – Dec 2022. Then updates header names to align and merges the two chunks. Nulls are left in the columns that exist in one but not the other.
  - Citi Bike's data has multiple latitude / longitude locations tied to the same station name. As a result, this file consolidates latitude and longitude coordinates to a single latitude / longitude per station name by finding the average value use at each starting and each end location and overwriting the downloaded values
- Additional modeling completed within Power BI:
  - Created column to display weekday name for both start and end dates
  - Created ride count measure
 - Created YoY% Ride Count change measure

Features / Reports

- Monthly total ride count with YoY % growth in parallel
- Monthly total ride count with YoY % growth in parallel separated by User Type (Subscriber vs. Not)
- Interactive 2021-2022 Monthly Usage filterable by year/quarter/month/year and *Starting* Station name with map indicating ride count and YoY% growth
- Interactive 2021-2022 Daily Usage filterable by year/quarter/month/day of the week and *Starting* Station name with map indicating ride count
- Interactive 2021-2022 Daily Usage filterable by year/quarter/month/day of the week and *Ending* Station name with map indicating ride count
- Interactive 2021-2022 Ride Count station maps for *Starting* and *Ending* stations by year/quarter/month
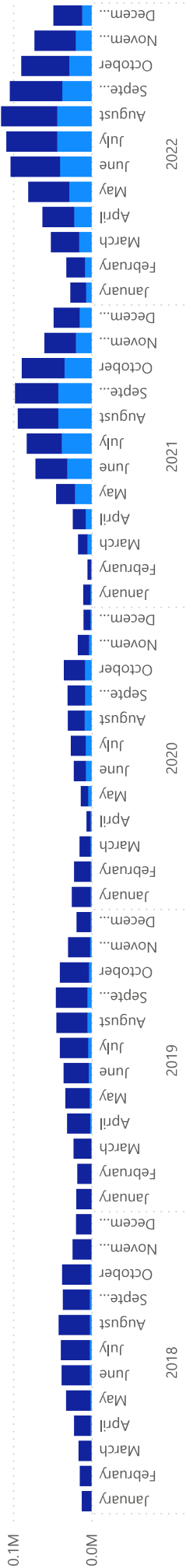
2018–2022 Monthly Usage: Ride Count

Count of ride_id   0.00M ███ 0.12M

2019–2022 Monthly YoY % Growth: Ride Count

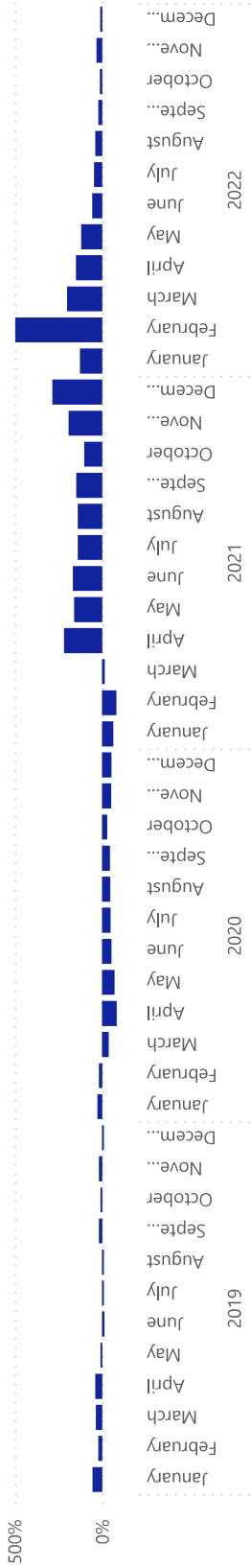YoY% Ride Count Growth   -79.56% ███ 0.00% ███ 553.78%
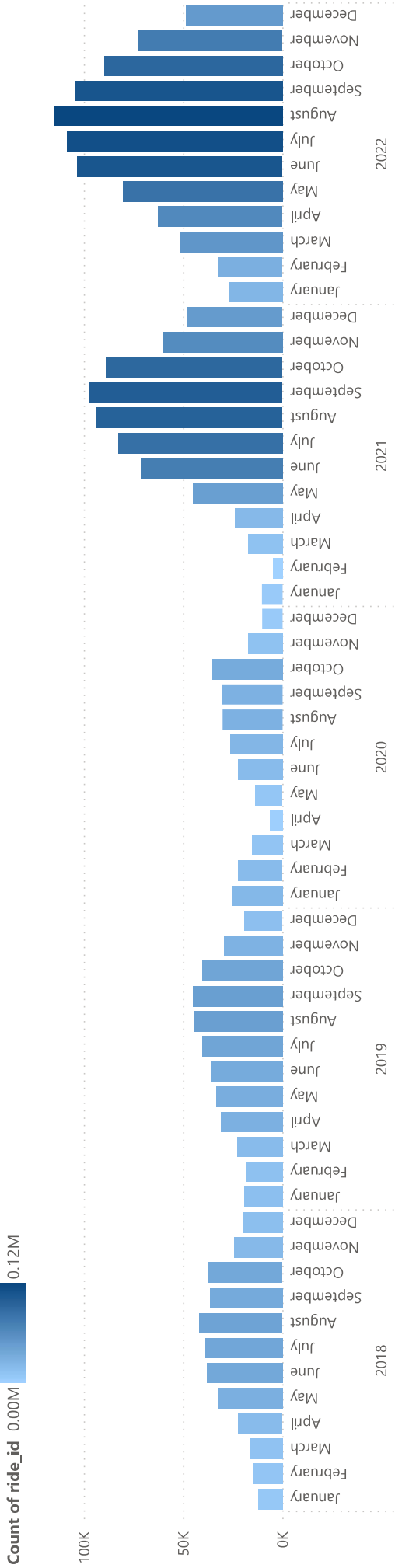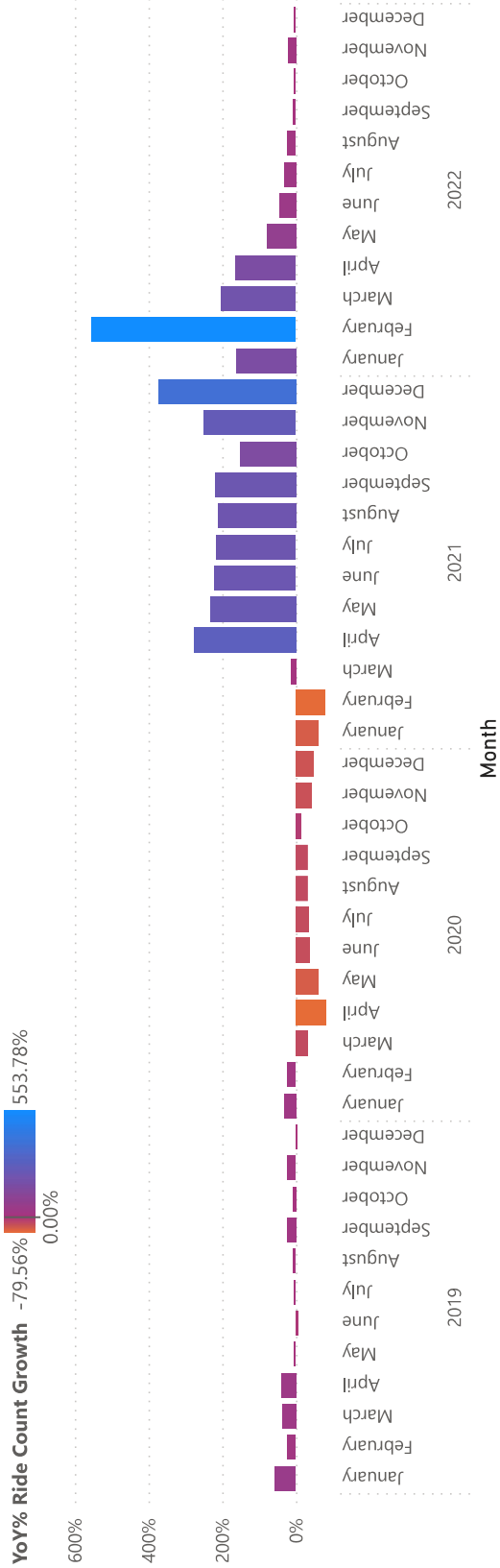
2018-2022 Monthly Usage: Ride Count by Usertype

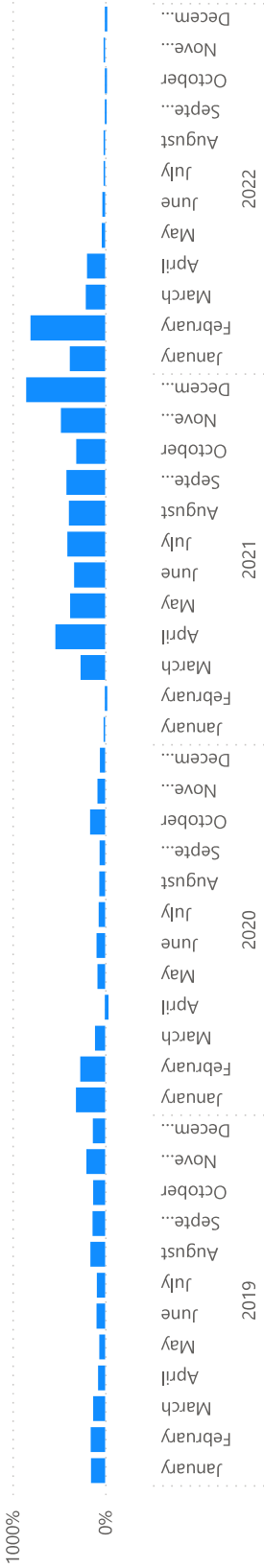User Types: ● Non-Subscribers ● Subscribers

2019-2022 Monthly YoY % Growth: Subscriber Ride Count

User Types: ● Subscribers

2019-2022 Monthly YoY % Growth: Non-Subscriber Ride Count
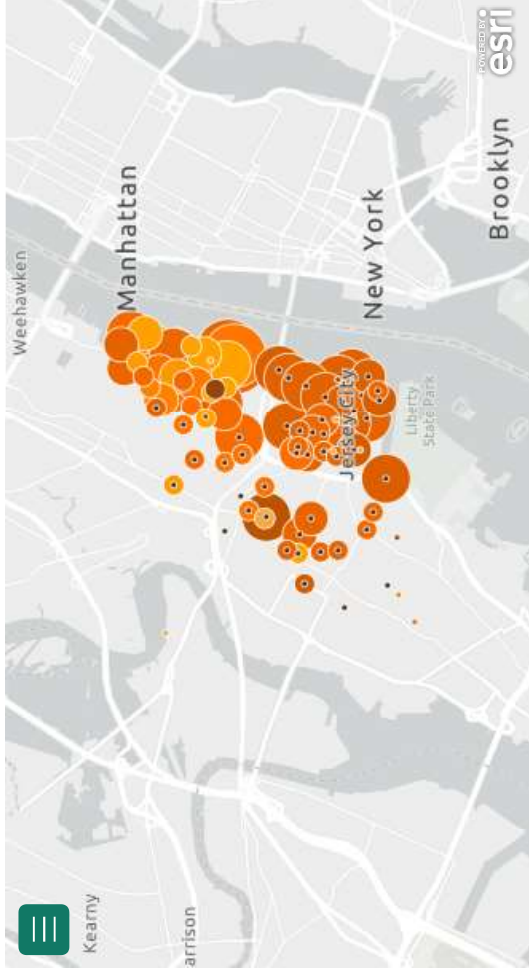
User Types: ● Non-Subscribers

2021–2022 Monthly Usage: Ride Count

2021–2022 Monthly YoY % Growth: Ride Count

YoY% Ride Count Growth

-77.92% 0.00% 553.78%

Select Desired Filter

Year, Quarter, Month

- 2021
- 2022

Start Station Name	Ride Count
Grove St PATH	72002
South Waterfront Walkway - Sinatra Dr & 1 St	61499
Hoboken Terminal - Hudson St & Hudson Pl	52369
Hoboken Terminal - River St & Hudson Pl	52282
Newport Pkwy	43370
Hamilton Park	39226
Newport PATH	37867
Marin Light Rail	35732
Hoboken Ave at Monmouth St	32829
Columbus Dr at Exchange Pl	31581
Harborside	30181
11 St & Washington St	29651
14 St Ferry - 14 St & Shipyard Ln	28935
Liberty Light Rail	28734
Washington St	28173
Total	**1538557**

2021–2022 Ride Count (size) and YoY% Growth (color) by Starting Station