

New York City Transportation:

Assessing the Use of the Citi Bike System Alongside the Taxi System



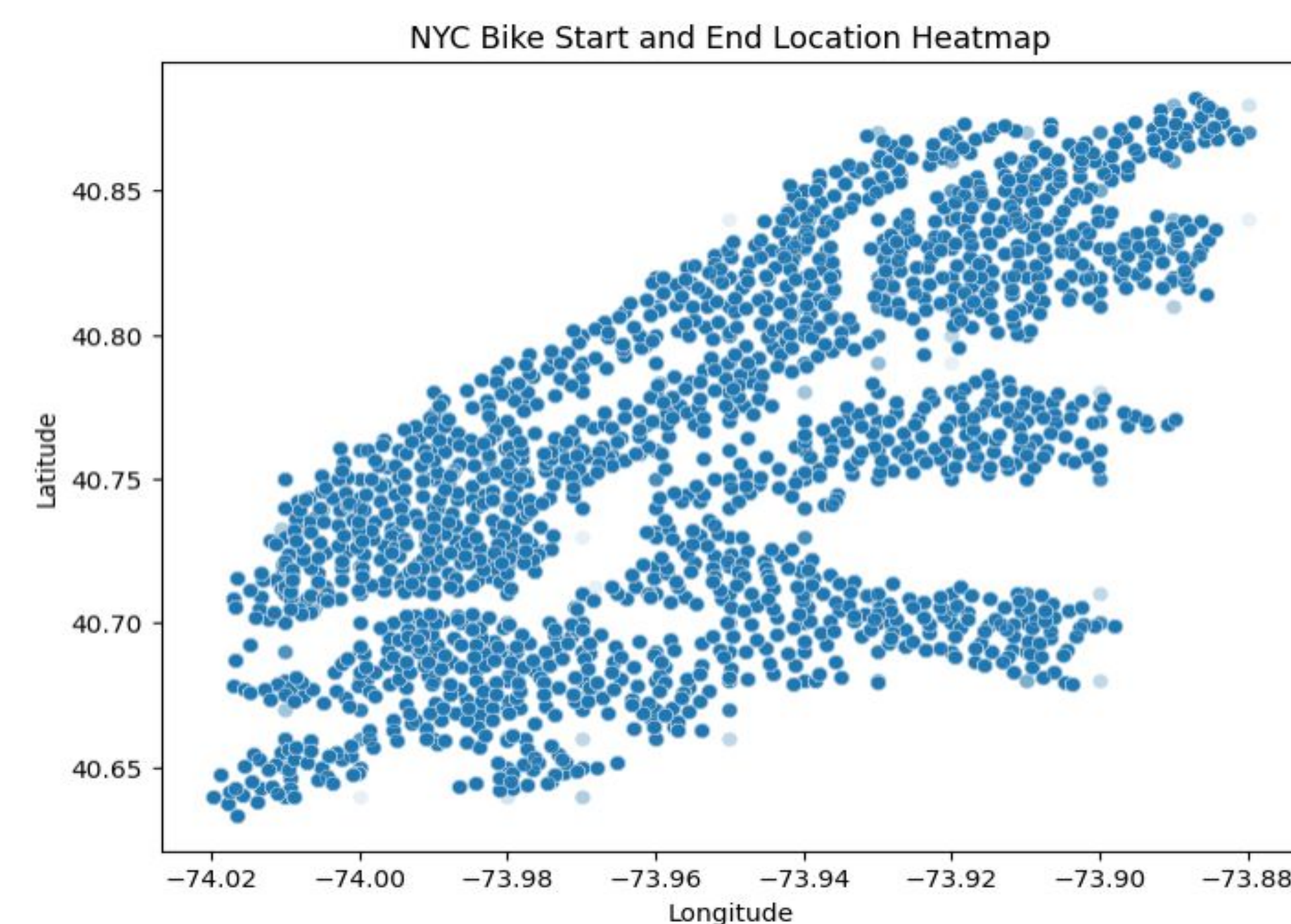
Sally Stahl

INTRODUCTION

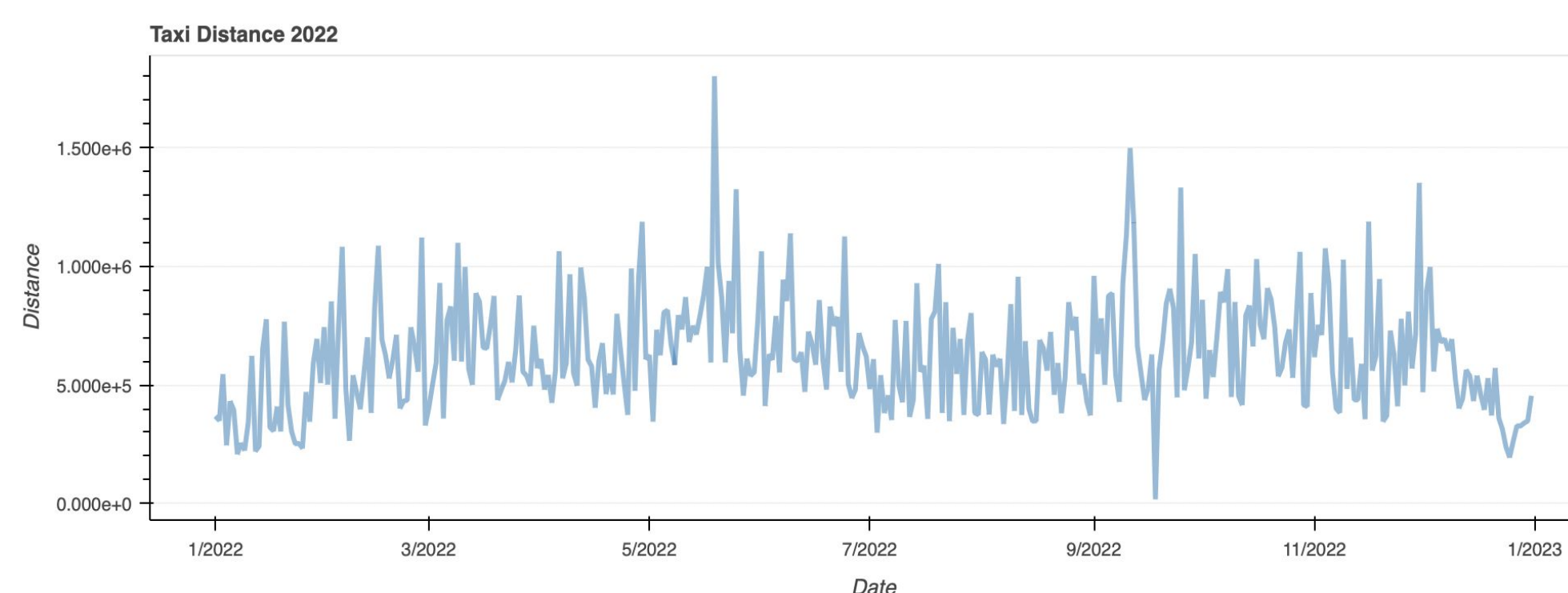
New York City is an incredibly dense city with so many people living in one city. With that comes with negative effects. NYC releases a lot of Co2 emissions and 30% of citywide emissions come from the transportation sector, and 95% of that comes from on-road vehicles. There needs to be less of a reliance on on-road vehicles and we must turn to other forms of transportation that are zero-emission, such as bikes.

This project looks at the use of the bikeshare system in New York City and compares it to the patterns of use of the NYC Yellow Taxi service. By investigating the interaction between the bikeshare system and the taxi system, we can identify the current patterns of these transportation systems, and find areas of improvement.

DATASETS

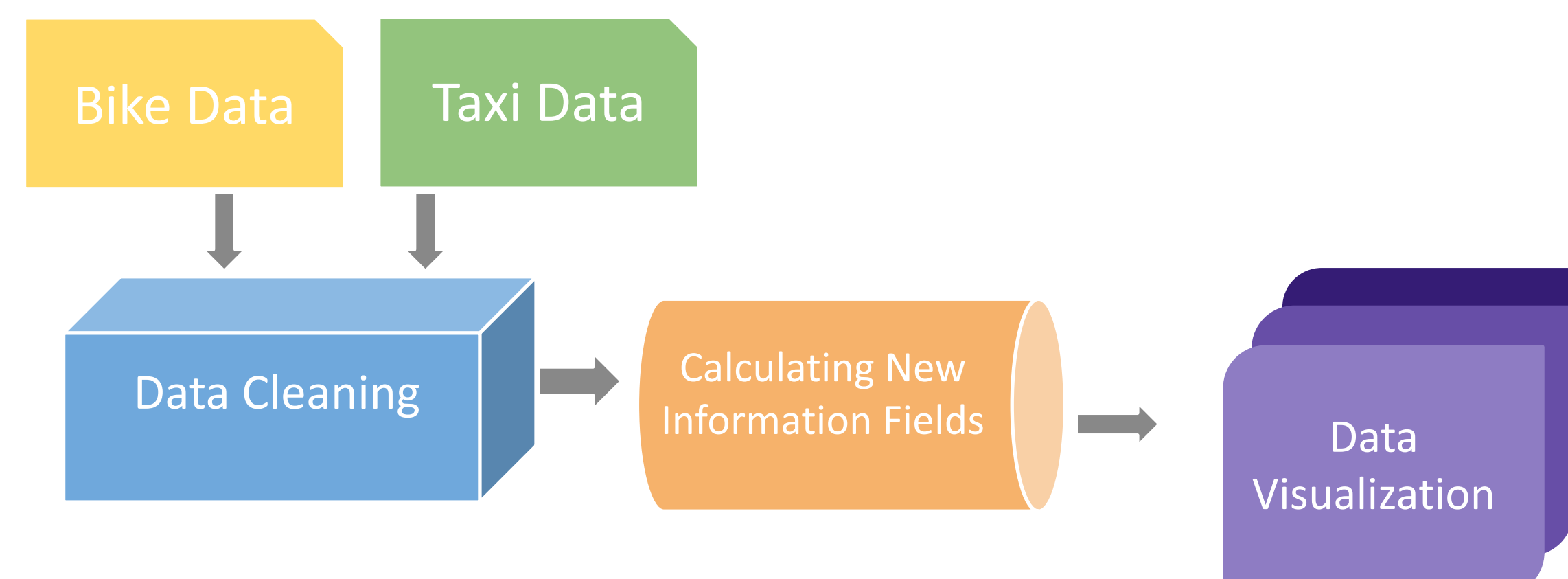


- The CitiBike bike share system in NYC has publicly available datasets with information from each ride taken.

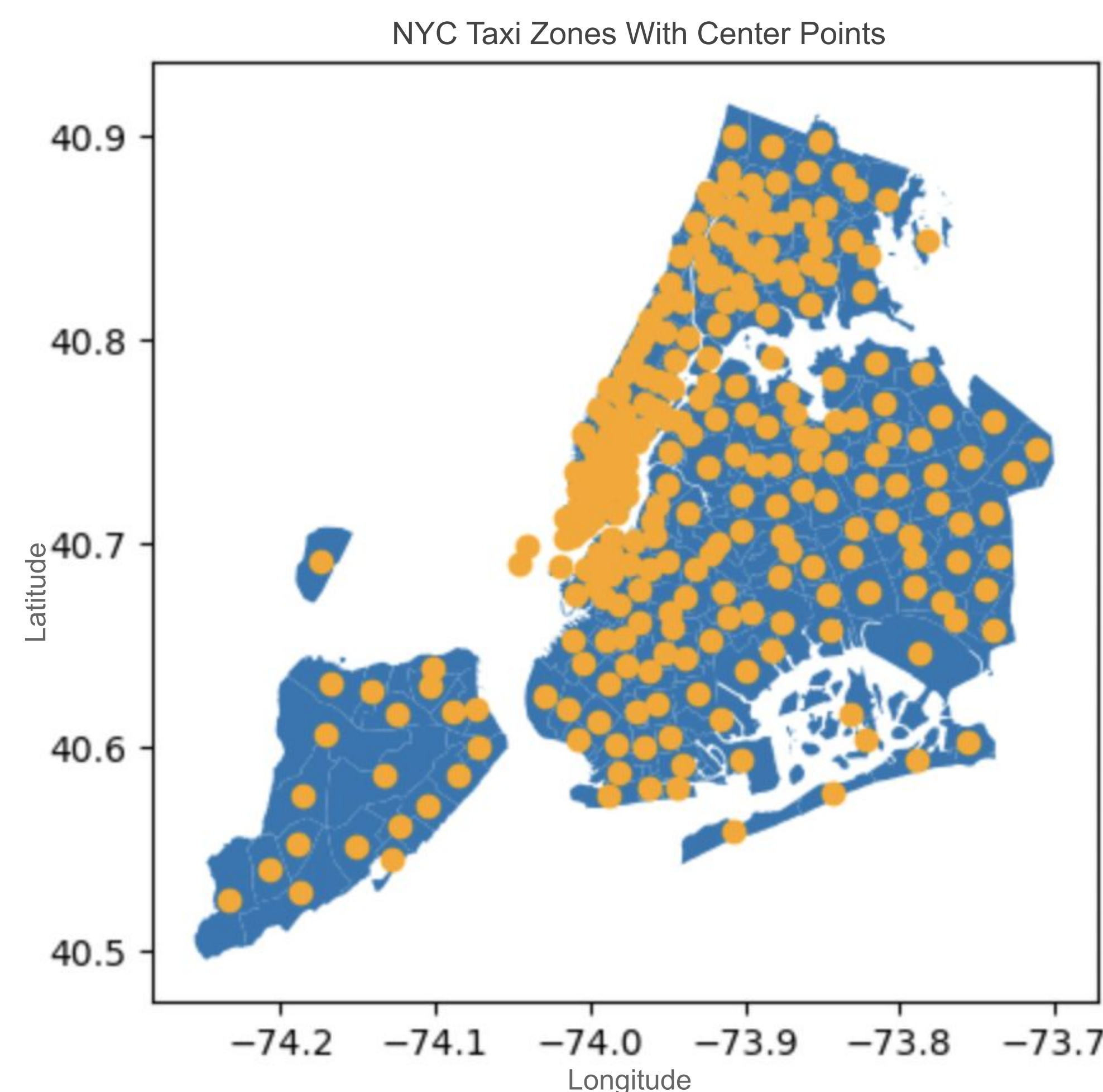


- The NYC Taxi and Limousine Service has information about all taxi trips taken since 2013.
- Both data sets were modified to ensure there was compatible and comparable information

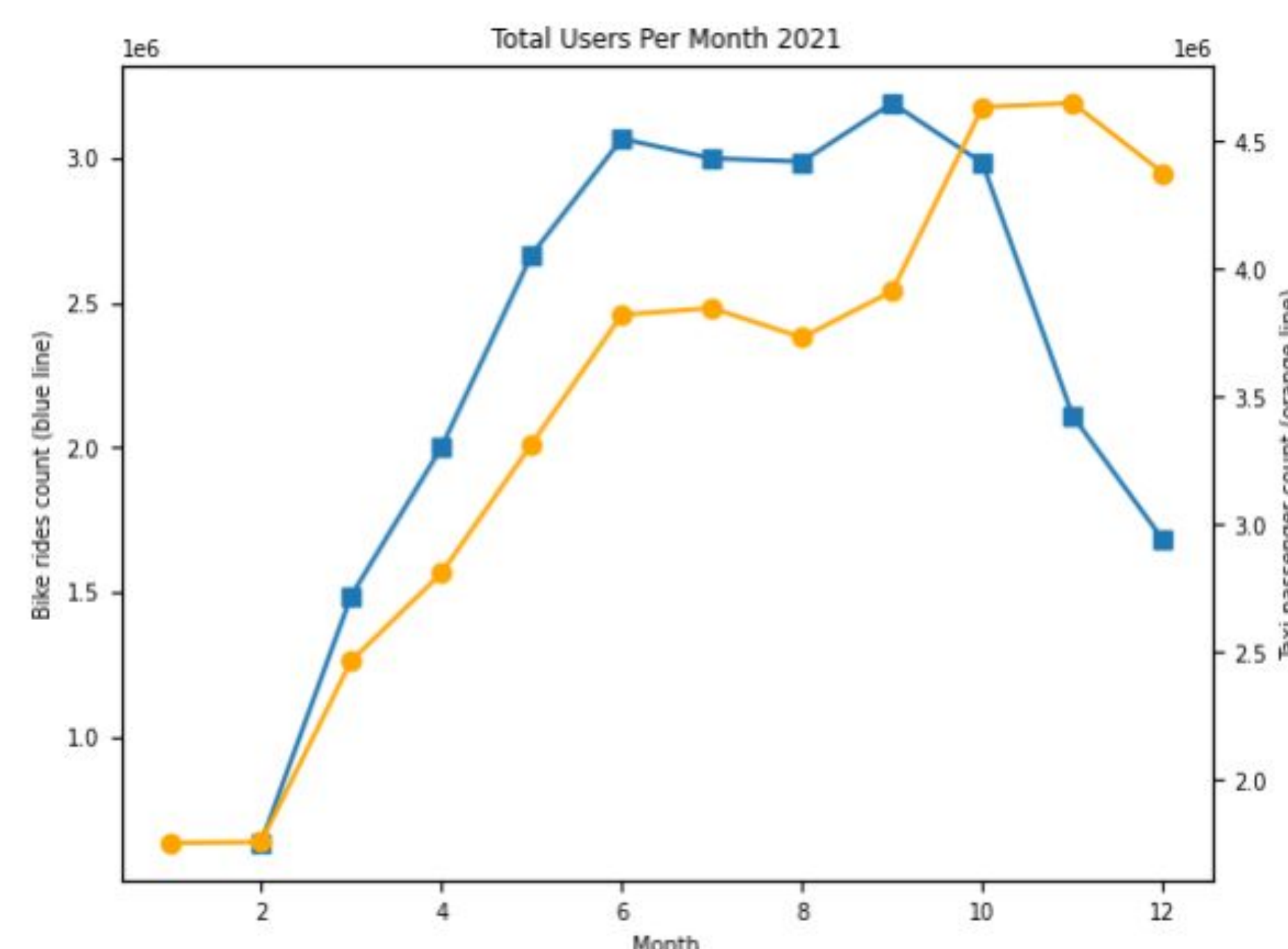
PIPELINE



METHODS

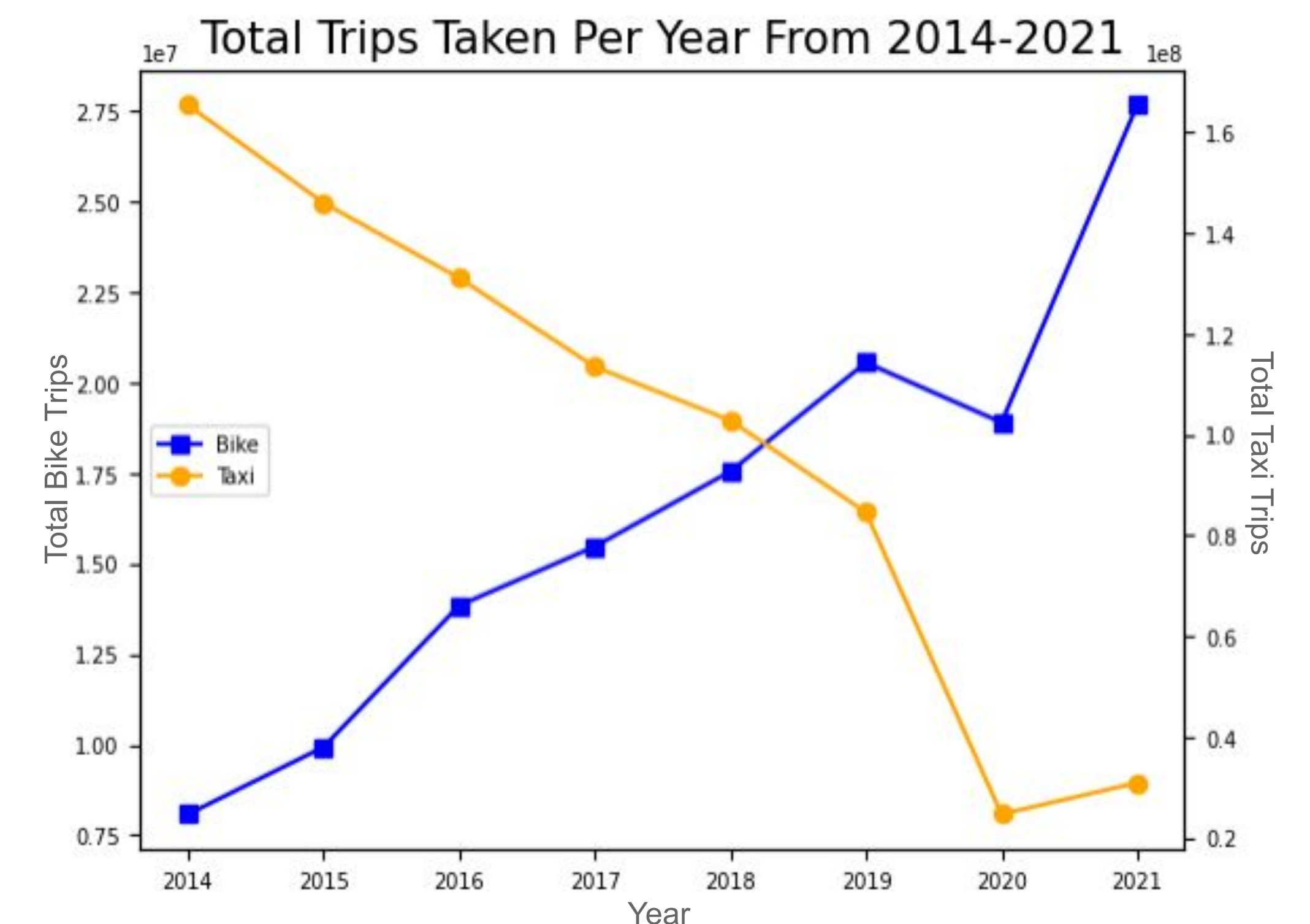


- The center points of all taxi zones provided estimation starting and ending latitude and longitude points for all taxi trips.

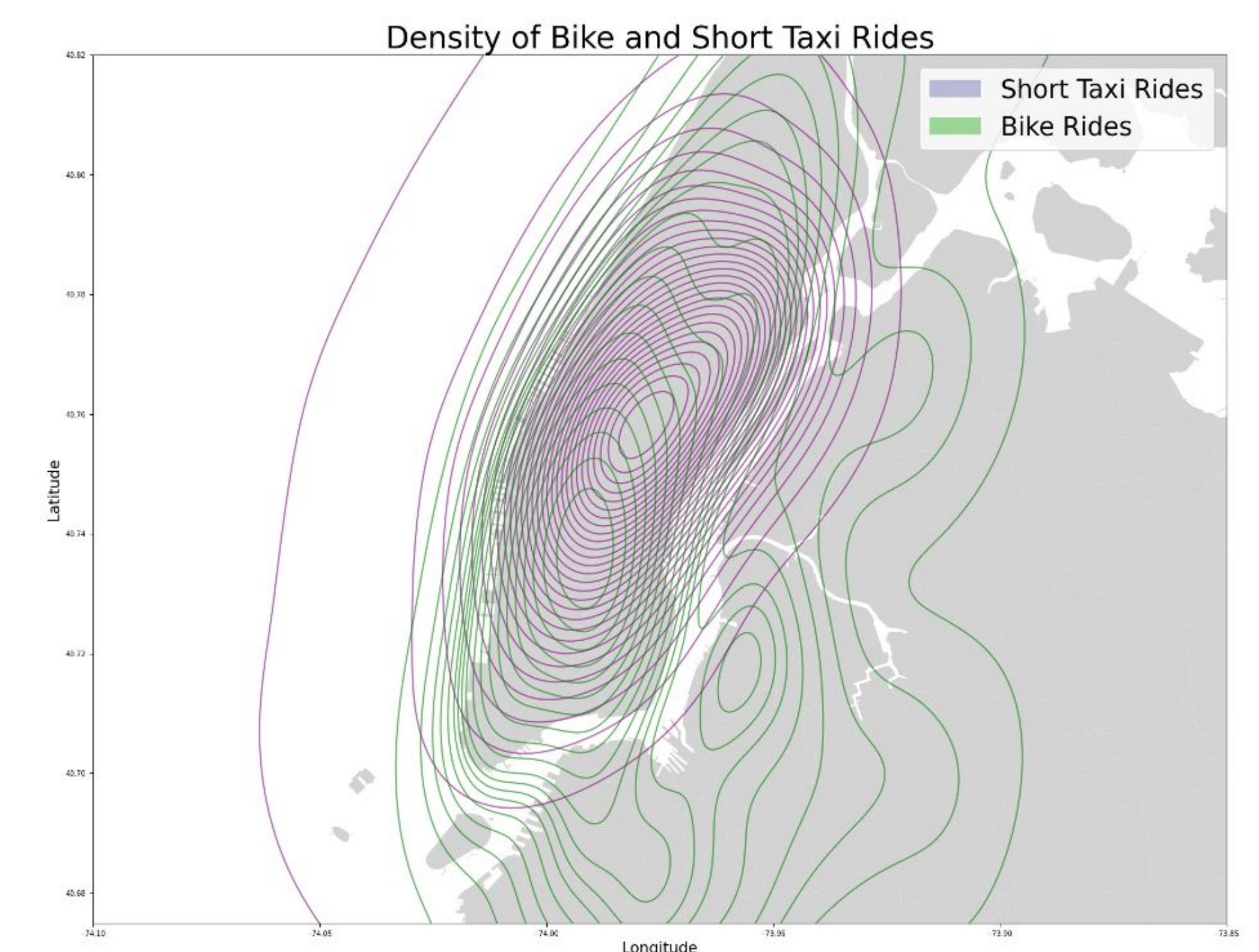


The summer months show a drop in taxi rides and an increase in bike trips. This increase in bike trips could be due to the high tourism numbers around this time of the year. But this could also be due to the weather being

RESULTS



There has been a consistent decrease in the overall usage of the NYC taxi system. The increase in total bike rides indicates that the system is seeing improvements and there have been people who could have chosen to take a bike instead of a taxi.



This is the density of taxi trips that were a mile and a half in distance or less. The highest density of these taxi trips occurs in places where there are many bike share stations already.

CONCLUSION

Though there is no shortage of bike stations located around the city, the bikeshare system is not being utilized to the fullest potential. There are still many taxi rides occurring that could easily be substituted with a bike, especially in the northern Manhattan Area.