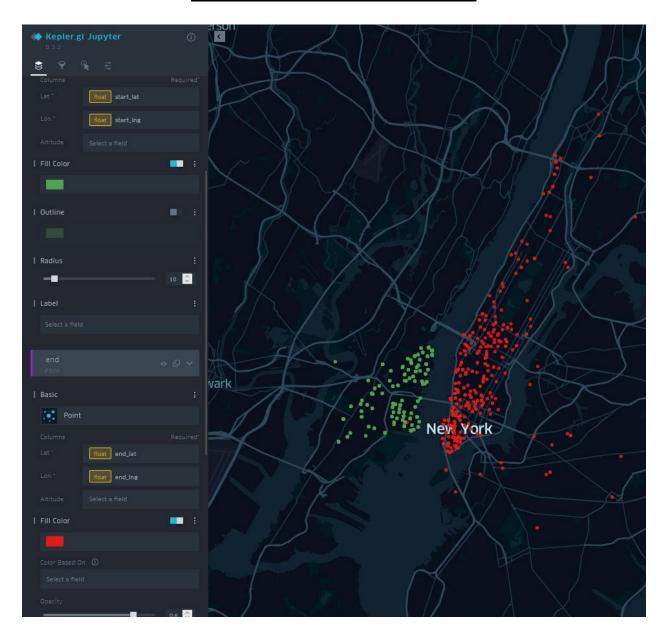
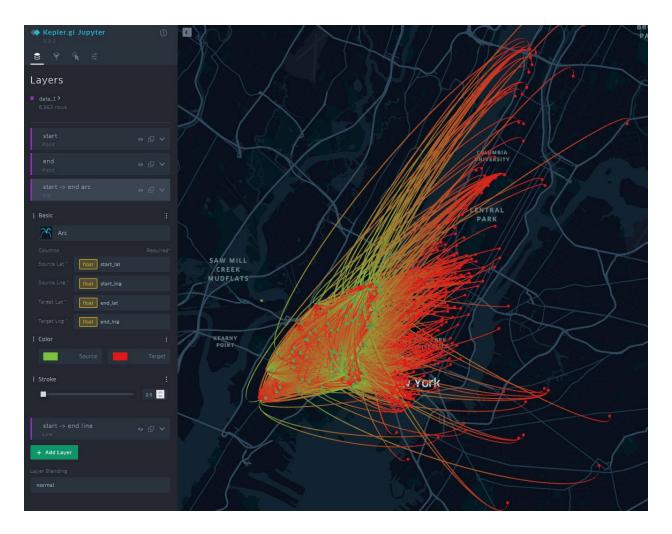
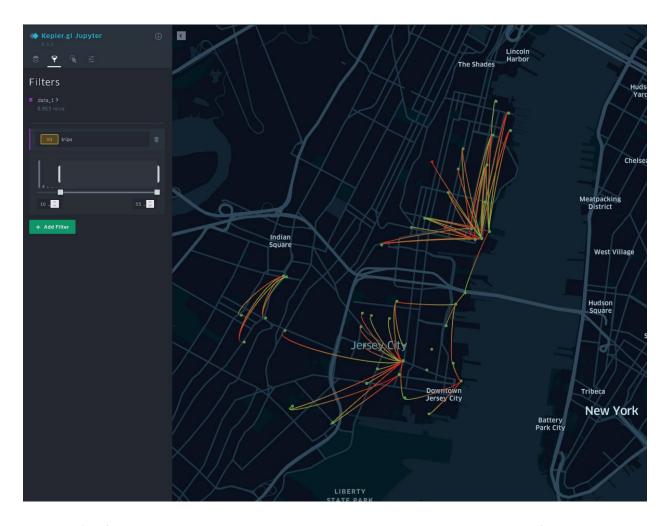
## **Advanced Geospatial Plotting**



The first setting I changed was to make the end points visible, then I removed the "trips" data under the "Color Based On" setting to make the points a single color rather than a gradient. I decided to make the colors intuitive by making the start points green and the end points red. I tried choosing a lighter green so that it contrasted better with the darker map background.



Next, I made the start-end arc visible and used that same intuitive color scheme for the arcs as well. I made the Source color green and the Target color red. I figured it would be easy to understand just by looking at the color which way the trip was going (green for go, red for stop).



After filtering the map to only show trips that had a count over 1000, we are left with the map above. The first thought I had when I filtered these trips was that the most trips using New York CitiBikes weren't even in New York, they are in New Jersey!

There are 3 zones that can be seen that are particularly busy. The first is the small cluster to the west near Indian Square. After a closer look I found that Journal Square Transportation is located where the two points to the north are. This makes sense that people may rent bikes after getting off the bus to get them the rest of their way to their destination or people who live nearby may rent bikes to get them to the bus station. There are also a number of shops and restaurants near the Journal Square Station, so people in nearby neighborhoods could use bike rentals to go out to eat or shop in that area.

The next zone is the one near the south part of the map near Jersey City. Obviously, I would expect city areas to have a higher amount of bike trips as driving around a city to go shopping, to a restaurant, or meet friends can be a pain with traffic and parking. The point right in the middle where it looks like all the lines converge is at an intersection of Christopher Columbus Dr and Grove St. All around this area are shops and restaurants, but the main thing I found here was the Grove St. entrance to the train station. This would easily explain why there are so many trips to and from this location. Same as above, people either rent a bike after getting off the train to go the rest of their way or rent a bike to get them to the train station to go to further destinations.

The last zone is the one to the north near the Hudson River. Where is looks like all the paths converge here is the Hoboken Terminal. This is a major gateway for commuters traveling between New

Jersey and Manhattan. With light rails, subways, and ferries all located in this area transporting tens of thousands of people a day, this is likely the main factor for the amount of bike trips in this area. I also found that Stevens Institute of Technology is located just north of the terminal where many of the paths head. So, these trips could consist of people commuting for work or students who are traveling to school. Overall, it seems that the highest amount of bike trips are located around major public transportation areas.