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**Professor Salloum** 

CS 105

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Project Proposal: LA Metro

I will use the following data:

• Metro Bike Share Data: https://bikeshare.metro.net/about/data/

• LA Metro Shape Files: <a href="https://developer.metro.net/bus-rail-gis-data/">https://developer.metro.net/bus-rail-gis-data/</a>

• LA Metro Real Time API: https://developer.metro.net/api/

All of these datasets are from the Los Angeles County Metropolitan Transit Authority. They contain all forms of public transit the agency offers from bikes (micro-mobility) to bus and rail (macro-mobility). The Metro Bike Data is in a CSV file that contains data on the following: duration of the ride, the start and end time, the start and end longitude and latitude, etc. The LA Metro Shape files provide shape files for the bus lines, bus stops, rail lines, rail stations, and rail portals. Lastly, the Metro Real Time API provides real time data on all of LA Metros buses using GPS. For the project, I plan to create a map of the LA Metro transit system that will aggregate all of this data and put it on a map (using the shape files) to analyze the system's efficiency. By visualizing the data, I hope to make recommendations to improve the system.