Citi Bike System Analysis

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April 5, 2018

Problem Definition

This project aims to explore Citi bike NYC data. The graph here would consists of nodes as source and destination and edges will represent information like time taken to reach, age of the rider, etc. and perform some analysis on

- Calculate parameters like centralities, betweenness, closeness etc.
- How the graph is structured[1].
- Bike density with respect to time.
- Traffic density analysis on start and end points [2, 3].

DataSet

We plan to use Citi bike data available on citi bike nyc site[4].

References

[1] Y. Hou, S. Sy, and C. Yuan, "Bike network flow prediction," *MIT CS 224W*, 2017.

[2] M. Pearson, J. Sagastuy, and S. Samaniego, "Traffic flow analysis using uber movement data," *MIT CS 224W*, 2017.

[3] D. W. Daddio, *Maximizing Bicycle Sharing: An Empirical Analysis Of Capital Bikeshare Usage*. NC, USA: University of North Carolina at Chapel Hill, 2012.

[4] Citi bike system, "Citi Bike Dataset." https://www.citibikenyc.com/system-data.