We use the data from two online location-based social networks service providers, which aims to understand what basic laws govern human motion and dynamics.[1] Users share their location through check-in, providing the friendship network collected using their public API (Application Programming Interface).

First data set is provided by Brightkite, which consists of 58,228 nodes and 214,078 edges. The network is originally directed but we have constructed a network with undirected edges when there is a friendship in both ways. We have also collected a total of 4,491,143 checkins of these users over the period of Apr. 2008 - Oct. 2010.[<http://snap.stanford.edu/data/loc-brightkite.html>]

Similarly, second data set is from Gowalla, consists of 196,591 nodes and 950,327 edges. We have collected a total of 6,442,890 check-ins of these users over the period of Feb. 2009 - Oct. 2010.[<http://snap.stanford.edu/data/loc-gowalla.html>]

[1] @inproceedings{cho2011friendship,

title={Friendship and mobility: user movement in location-based social networks},

author={Cho, Eunjoon and Myers, Seth A and Leskovec, Jure},

booktitle={Proceedings of the 17th ACM SIGKDD international conference on Knowledge discovery and data mining},

pages={1082--1090},

year={2011}

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