

By Jure Leskovec

STANFORD
UNIVERSITY



SNAP for C++
SNAP for Python
SNAP Datasets
What's new
People
Papers
Projects
Citing SNAP
Links
About
Contact us

Open positions

We have filled all the positions for this quarter.
[More info.](#)

Bitcoin OTC trust weighted signed network

Dataset information

This is who-trusts-whom network of people who trade using Bitcoin on a platform called [Bitcoin OTC](#). Since Bitcoin users are anonymous, there is a need to maintain a record of users' reputation to prevent transactions with fraudulent and risky users. Members of Bitcoin OTC rate other members in a scale of -10 (total distrust) to +10 (total trust) in steps of 1. This is the first explicit weighted signed directed network available for research.

Dataset statistics

Nodes	5,881
Edges	35,592
Range of edge weight	-10 to +10
Percentage of positive edges	89%

Similar network from another Bitcoin platform, Bitcoin Alpha, is available [here](#).

Source (citation)

Please cite the following paper if you use this dataset:

- S. Kumar, F. Spezzano, V.S. Subrahmanian, C. Faloutsos. [Edge Weight Prediction in Weighted Signed Networks](#). IEEE International Conference on Data Mining (ICDM), 2016.

The following BibTeX citation can be used:

```
@inproceedings{kumar2016edge,
  title={Edge weight prediction in weighted signed networks},
  author={Kumar, Srijan and Spezzano, Francesca and Subrahmanian, VS and Faloutsos, Christos},
  booktitle={Data Mining (ICDM), 2016 IEEE 16th International Conference on},
  pages={221--230},
  year={2016},
  organization={IEEE}
}
```

The **project webpage** for this paper, along with its code to calculate two signed network metrics---fairness and goodness---is available [here](#).

Files

File	Description
soc-sign-bitcoinotc.csv.gz	Weighted Signed Directed Bitcoin OTC web of trust network

Data format

Each line has one rating, sorted by time, with the following format:

SOURCE, TARGET, RATING, TIME

where

- SOURCE: node id of source, i.e., rater
- TARGET: node id of target, i.e., ratee
- RATING: the source's rating for the target, ranging from -10 to +10 in steps of 1
- TIME: the time of the rating, measured as seconds since Epoch. (This can be converted to human readable data easily as described [here](#))