Yuan Yuan

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EMPLOYMENT HISTORY

Purdue University　　　　　　　　　　　　　　　　　　**West Lafayette, IN, USA**
Assistant Professor of Management　　　　　　　　　　　　　　*August 2021 - Present*

EDUCATION

Massachusetts Institute of Technology　　　　　　　　　　　　**Cambridge, MA, USA**
PhD, Institute for Data, Systems, and Society　　　　　　　　*Sept 2016 - August 2021*
- Interdisciplinary Ph.D. program between data science and social science
- Dual Ph.D. in *Statistics*

Tsinghua University　　　　　　　　　　　　　　　　　　　　**Beijing, China**
BEng, Computer Science;　BA, Economics (2nd Major)　　　　　　*Sept 2012 - June 2016*
- Graduation with honors

PUBLICATIONS AND MANUSCRIPTS

[4] **Yuan Yuan**, Tracy Xiao Liu, Chenhao Tan, Qian Chen, Alex 'Sandy' Pentland, and Jie Tang, "*Gift contagion in online groups: Evidence from WeChat red packets.*" Minor Revision, *Management Science.*

[3] **Yuan Yuan**, Kristen Altenburger, and Farshad Kooti, "*Causal Network Motifs: Identifying Heterogeneous Spillover Effects in A/B Tests*", the Web Conference (WWW), 2021.

[2] **Yuan Yuan**, Ahmad Alabdulkareem, and Alex 'Sandy' Pentland. "*An interpretable approach for social network formation among heterogeneous agents.*" *Nature Communications* (if=14.92), 2018.

[1] **Yuan Yuan**, Sihong Xie, Chun-Ta Lu, Jie Tang, and Philip S. Yu, "*Interpretable and effective opinion spam detection via temporal pattern mining across websites.*" *IEEE International Conference on Big Data*, 2016.

WORKING PAPERS

[1] **Yuan Yuan**, Christos Nicolaides, Dean Eckles, and Alex 'Sandy' Pentland, "*Who motivates more workouts: Friends or strangers?*" working paper.

WORK EXPERIENCE

Core Data Science Group, Facebook Research　　　　　　　　　　**Menlo Park, CA, USA**

Research Intern   *May 2020 - August 2020*

- Mentor: Dr. Farshad Kooti
- Employed causal inference and machine learning to understand how to promote social interactions and solidarity in online social networks.
- Explored methods for conducting causal inference on large-scale social networks.

INVITED TALKS & LECTURES

[5] "*Causal Network Motifs: Identifying Heterogeneous Spillover Effects in A/B Tests*", invited talk, Oxford Mathematical Institute, Nov 2020.

[4] "*Causal identifications in observational studies*", invited talk, Conference on Big Data and Social Computing, Aug 2020.

[3] "*Identifying gift contagion in online groups,* " guest lecturer for Behavioral Economics, Tsinghua University (remotely), Mar 2020.

[2] "*Predicting economic growth by social diversity,* " invited talk, International Conference on Social Computing, Aug 2019.

[1] "*Trading off between homophily and social exchange for social network formation,* " invited talk, Beijing Normal University, Jan 2019.

CONFERENCE PRESENTATIONS

[16] "*Prosocial Incentives and Workouts: Evidence from a Massive Online Experiment*" Conference on Digital Experimentation (CODE), Boston, Nov 2020.

[15] "*Causal Network Motifs: Identifying Heterogeneous Spillover Effects in A/B Tests*" Conference on Digital Experimentation (CODE), Boston, Nov 2020.

[14] "*Trade-off between social exchange and homophily in social network formation?*" International Conference on Network Science (NetSci), Machine Learning Workshop, Rome, Sept 2020.

[13] "*Who motivates more workouts: Friends or strangers?*" International Conference on Network Science (NetSci), Rome, Sept 2020.

[12] "*Who motivates more workouts: Friends or strangers?*", International Conference on Computational Social Science (IC2S2), Boston, July 2020.

[11] "*The contagion of online gift giving,*" INFORMS Annual Meeting, Seattle, Oct 2019.

[10] "*Does prosocial contagion increase inequality? A large-scale online field experiment,*" International Conference on Computational Social Science (IC2S2), Amsterdam, July 2019.

[9] "*A large-scale natural experiment of indirect reciprocity,*" Conference on Digital Experimentation (CODE), Boston, Oct 2018.

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[8] "*A large-scale natural experiment of indirect reciprocity,*" Advances in Field Experiments (AFE), Boston, Oct 2018.

[7] "*Online red packets: A large-scale empirical study of gift giving on WeChat,*" International Conference on Computational Social Science (IC2S2), Evanston, July 2018.

[6] "*An interpretable approach for social network formation among heterogeneous agents,*" International Conference on Computational Social Science (IC2S2), Evanston, July 2018.

[5] "*Trade-off between social exchange and homophily in social network formation,*" International Conference on Network Science (NetSci), Paris, June 2018.

[4] "*A large-scale empirical study of gift giving on WeChat,*" Annual Conference on Network Science and Economics (NetSci Econ), Nashville, Apr 2018.

[3] "*Trade-off between social exchange and homophily in social network formation,*" Annual Conference on Network Science and Economics (NetSci Econ), Nashville, Apr 2018.

[2] "*Social network formation based on endowment exchange. and Social Representation,*" Conference on Complex Systems (CCS), Cancún, Oct 2017.

[1] "*Interpretable and effective opinion spam detection via temporal pattern mining across websites,*" IEEE International Conference on Big Data (BigData), Washington DC, Dec 2016.

PROFESSIONAL SERVICES

Technical Program Committee: Conference on Digital Experimentation (CODE), Boston, 2019 & 2020.
Organizer: Summer Institute in Computational Social Science, Beijing, 2021
Session chair: CODE'2019, IC2S2'2020.
Reviewer: Management Science, MIS Quarterly, ACM Transactions on Knowledge Discovery from Data, IEEE Transactions on Big Data, Misinformation Review, CODE'19, IC2S2'20.
Mentorship: Hesham Nawaz (MIT undergraduate research intern).

MEDIA COVERAGE

[2] "*WeChat is running a natural experiment in human generosity,*" MIT Technology Review, 2019.

[1] "*Model helps explain how social networks form,*" PNAS Journal Club, 2018.

SELECTED AWARDS & GRANTS

Travel Grant for International Conference on Network Science	*2020*
Research Grant ($5,000) from Russel Sage Foundation (co-PI)	*2019*
Participant in Summer Institute in Computational Social Science, Princeton University	*2019*
Travel Grant for Annual Conference on Network Science and Economics	*2018*
College Graduate Excellence Award, Tsinghua University	*2016*

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| China Computer Federation Outstanding Undergraduate Award | 2015 |
| Chinese National Scholarship | 2014 |