

Jian Gao

📞 Mobile: (+1) 617-500-3208
✉ gaojian08[at]hotmail.com
🏠 Homepage: gaocn.net
AC: gaojian[at]mit.edu

Personal Information

Birth DATE: May 28, 1989 ◇ GENDER: Male ◇ NATIONALITY: P.R. China
Affiliation CompleX Lab, University of Electronic Science and Technology of China (UESTC)
Office Room 330 Innovation Center, No.2006 Xiyuan Ave, West Hi-Tech Zone, Chengdu 611731, China

Education Background

2014–Present **University of Electronic Science and Technology of China** Chengdu, China
PhD Student in *Computer Science*. School of Computer Science and Engineering
advisor: Prof. Tao Zhou

2016–2017 **Massachusetts Institute of Technology** Cambridge, USA
Visiting Student in *Media Arts and Sciences*. Collective Learning Group, MIT Media Lab
advisor: Prof. César A. Hidalgo

2012–2014 **University of Electronic Science and Technology of China** Chengdu, China
Master Student in *Computer Science*. School of Computer Science and Engineering
advisor: Prof. Tao Zhou

2008–2012 **University of Electronic Science and Technology of China** Chengdu, China
B.Sc in *Information and Computing Science*. School of Mathematical Sciences
GPA: 88.6/100 (3.88/4)

2005–2008 **Shangzhi (No. 1) High School** Harbin, China
High School Diploma

Research Interests

Network Sci Network Models, Vertex Similarity, Percolation Transition, Networked Spreading
Inform Ret Recommender Systems, Bipartite Networks, Ranking Methods, Reputation Evaluation
Data Anal Economic Complexity, Socio-economic Systems, Industrial Structure, Social Media

Publications

Pre-Print

- [4] **Jian Gao**, Bogang Jun, Alex “Sandy” Pentland, Tao Zhou & César A. Hidalgo. Collective learning in China’s regional economic development. arXiv:1703.01369, 2017.
- [3] Xiao Yang, **Jian Gao**[†], Jin-Hu Liu & Tao Zhou. Height conditions salary expectations: Evidence from large-scale data in China. *Social Science Research Network*, SSRN:2975503, 2017.
- [2] Yi Cao, **Jian Gao**, De-Fu Lian, Zhi-Hai Rong, Jia-Tu Shi, Qing Wang, Yi-Fan Wu, Hua-Xiu Yao & Tao Zhou. Orderness predicts academic performance: Behavioral analysis on campus lifestyle. arXiv:1704.04103, 2017.
- [1] Bogang Jun, Aamena Alshamsi, **Jian Gao** & Cesar A. Hidalgo. Relatedness, knowledge diffusion, and the evolution of bilateral trade. arXiv:1709.05392, 2017.

Journal Papers

- [13] **Jian Gao**[†] & Tao Zhou. Quantifying China’s regional economic complexity. *Physica A*, 492: 1591–1603, 2018.
- [12] **Jian Gao**[†] & Tao Zhou. Evaluating user reputation in online rating systems via an iterative group-based ranking method. *Physica A*, 473: 546–560, 2017.

- [11] Ling-Jiao Chen, Zi-Ke Zhang, Jin-Hu Liu, **Jian Gao**[†] & Tao Zhou. A vertex similarity index for better personalized recommendation. *Physica A*, 466: 607–615, 2017.
- [10] **Jian Gao**[†] & Tao Zhou. Big data reveal the status of economic development. *Journal of University of Electronic Science and Technology of China*, 45(4): 625–633, 2016 (in Chinese).
- [9] Qing Wang, **Jian Gao**, Tao Zhou, Zheng Hu & Hui Tian. Critical size of ego communication networks. *EPL (Europhysics Letters)*, 114(5): 58004, 2016.
- [8] Jia Yuan, Qian-Ming Zhang, **Jian Gao**, Linyan Zhang, Xue-Song Wan, Xiao-Jun Yu & Tao Zhou. Promotion and resignation in employee networks. *Physica A*, 444: 442–446, 2016.
- [7] **Jian Gao**, Tao Zhou & Yanqing Hu. Bootstrap percolation on spatial networks. *Scientific Reports*, 5: 14662, 2015.
- [6] **Jian Gao**, Yu-Wei Dong, Ming-Sheng Shang, Shi-Min Cai & Tao Zhou. Group-based ranking method for online rating systems with spamming attacks. *EPL (Europhysics Letters)*, 110(2): 28003, 2015.
- [5] Linyan Zhang, **Jian Gao**, Xiang Hong & Tao Zhou. Human resource management based on big data. *Big Data Research*, 1: 2015012, 2015 (in Chinese).
- [4] **Jian Gao**, Linyan Zhang, Qian-Ming Zhang & Tao Zhou. Big data human resources: Performance analysis and promotion/resignation in employee networks. *Social Physics: Social Governance*, Beijing: Science Press, ch. 4, pp. 38–56, 2014 (in Chinese).
- [3] Dan-Dan Zhao, An Zeng, Ming-Sheng Shang & **Jian Gao**. Long-term effects of recommendation on the evolution of online systems. *Chinese Physics Letters*, 30: 8901, 2013.
- [2] **Jian Gao**[†] & Xi-Nan Zhang. Comprehensive scholarship evaluation model in colleges and universities. *Journal of Chongqing Technology and Business University (Nat Sci Ed)*, 29(1): 36–41, 2012 (in Chinese).
- [1] Fangjian Guo, Jiang Su & **Jian Gao**. Finding conspirators in the network via machine learning. *The UMAP Journal*, 33(3): 275–292, 2012.

Conference Papers

- [2] **Jian Gao**[†]. Maximizing the collective learning effects in regional economic development. In: *2017 14th International Computer Conference on Wavelet Active Media Technology and Information Processing (ICCWAMTIP)*, IEEE Press, 2017, pp. 337–341.
- [1] Liming Pan, Lei Gao & **Jian Gao**. Link prediction in weighted networks via structural perturbations. In: *2017 14th International Computer Conference on Wavelet Active Media Technology and Information Processing (ICCWAMTIP)*, IEEE Press, 2017, pp. 5–8.

Correspondence

- [1] **Jian Gao**[†] & Tao Zhou. Stamp out fake peer review. *Nature*, 546(7656): 33, 2017.

Research Experience

| | | |
|--------------|--|-------|
| 2017–Present | Research Assistant advisor: Prof. Tao Zhou. Web Sciences Center & Big Data Research Center | UESTC |
| 2016–2017 | Research Assistant advisor: Prof. César A. Hidalgo. Collective Learning Group, MIT Media Lab | MIT |
| 2016–2016 | Visiting Scholar advisor: Prof. H. Eugene Stanley. Department of Physics | BU |
| 2013–2016 | Research Assistant advisor: Prof. Tao Zhou. Web Sciences Center & Big Data Research Center | UESTC |
| 2012–2013 | Research Assistant advisor: Prof. Ming-Sheng Shang. Web Sciences Center | UESTC |

Teaching Experience

| | | |
|-----------|--|-------|
| Fall 2013 | TA & Grader, Calculus I (undergraduate), School of Mathematical Sciences | UESTC |
| Fall 2012 | TA, Mathematical Modeling (undergraduate), School of Mathematical Sciences | UESTC |

Academic Activities

| | | |
|----------|---|-------------------|
| Jan 2018 | NetSciX 2018–International School and Conference on Network Science | Hangzhou, China |
| Apr 2017 | AAG 2017–Economic Geography Sessions | Boston, USA |
| Jan 2017 | B4 Event–Universidad del Desarrollo | Valparaiso, Chile |
| Mar 2016 | Interdisciplinary Complex Systems Science Seminar in BU | Boston, USA |
| Oct 2015 | Symposium on Complexity Science in SWUST | Mianyang, China |
| Jun 2015 | The Statistical Physics and Complex Systems Conference | Lanzhou, China |
| Oct 2014 | The 10th Chinese Conference on Complex Networks | Changsha, China |
| Jul 2014 | The 2nd Academic Conference on Complexity Science | Wenzhou, China |
| Oct 2013 | The 9th Chinese Conference on Complex Networks | Hangzhou, China |

Honors & Awards

| | | |
|-----------|--|---------|
| 2016 | National Scholarship for Graduate Student, <i>Ministry of Education</i> | (5%) |
| 2016 | First-class Scholarship for Graduate Student, <i>UESTC</i> | (5%) |
| 2016 | CSC Scholarship, <i>China Scholarship Council & Ministry of Education</i> | NaN |
| 2013-2015 | Graduate Student Scholarship & Tang Lixin Scholarship | (0.5%) |
| 2014 | Best Poster Award in the 2nd Conference on Complexity Science | (Top 3) |
| 2012 | Outstanding Winner in 2012 Interdisciplinary Contest in Modeling <i>COMAP, sponsored by SIAM, NSA and INFORMS</i> | (0.3%) |
| 2011 | Outstanding Student of the University, <i>UESTC</i> <i>awarded by the principal's office, the highest honor for undergraduates</i> | (0.2%) |
| 2009-2011 | National Inspiration Scholarship, <i>Ministry of Education</i> | (5%) |

Review Services

| | | |
|----------|---|-------|
| Reviewer | Physics Letters A, <i>Elsevier B.V.</i> | 2017- |
| | Knowledge-Based Systems (KBS), <i>Elsevier B.V.</i> | 2017- |
| | Computer Standards and Interfaces (CSI), <i>Elsevier B.V.</i> | 2017- |
| | Physica A: Statistical Mechanics and its Applications, <i>Elsevier B.V.</i> | 2016- |
| | IEEE Transactions on Knowledge and Data Engineering (TKDE), <i>IEEE Press</i> | 2016- |
| | Journal of Computational Methods in Sciences and Engineering (JCMSE), <i>IOS Press</i> | 2016- |
| | Journal of University of Electronic Science and Technology of China, <i>UESTC Press</i> | 2014- |

Skills

| | | |
|-----------|------------------------------------|---|
| Computing | MATLAB (practical), Python (basic) | ◇ Visualization: OriginLab, Gephi, D3, AI |
| Language | English (fluent), Chinese (native) | ◇ Typesetting: L ^A T _E X, MS Office |

References

| | |
|--|----------------|
| Prof. Tao Zhou , zhutou@ustc.edu | Chengdu, China |
| Big Data Research Center, University of Electronic Science and Technology of China | |
| Prof. César A. Hidalgo , hidalgo@mit.edu | Cambridge, USA |
| Macro Connections, MIT Media Lab, Massachusetts Institute of Technology | |