Jian Gao

✉ gaojian08 [at] hotmail.com
⌂ Homepage: http://gaocn.net

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	Computational Socioeconomics, Economic Complexity, Industrial Structure, Social Media

Publications

Pre-Print

[5] **Jian Gao**[†], Tao Zhou & Yi-Cheng Zhang. Computational socioeconomics. Prepared for and invited by *Physics Reports*, 2019.

[4] Jun Wang, **Jian Gao**[†], Jin-Hu Liu, Dan Yang & Tao Zhou. Regional economic status inference from online information flow and offline talent mobility. Submitted to *EPL (Europhysics Letters)*, 2019.

[3] Yi Cao, **Jian Gao** & Tao Zhou. Orderliness of campus lifestyle predicts academic performance: A Chinese perspective. In *Mobile Sensing and Psychoinformatics*, H. Baumeister & C. Montag (Eds). In press, 2019.

[2] Bogang Jun, Aamena Alshamsi, **Jian Gao** & César A. Hidalgo. Relatedness, knowledge diffusion, and the evolution of bilateral trade. Under 2nd review at *Journal of Evolutionary Economics*. arXiv:1709.05392, 2017.

[1] **Jian Gao**, Bogang Jun, Alex "Sandy" Pentland, Tao Zhou & César A. Hidalgo. Collective learning in China's regional economic development. arXiv:1703.01369, 2017.

Journal Papers

[17] 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. *Journal of the Royal Society Interface* 15: 20180210, 2018.

[16] Wei-Jie You, **Jian Gao** & Tao Zhou. Application of carrier data on precise poverty alleviation and emergency management. *Journal of University of Electronic Science and Technology of China (Social Sciences Edition)*, 20(6): 83–88, 2018 (in Chinese).

[15] Ling-Jiao Chen & **Jian Gao**[†]. A trust-based recommendation method using network diffusion processes. *Physica A* 506: 679–691, 2018.

[14] Xiao Yang, **Jian Gao**[†], Jin-Hu Liu & Tao Zhou. Height conditions salary expectations: Evidence from large-scale data in China. *Physica A*, 501: 86–97, 2018.

[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 (Natural Science Edition)*, 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

Nov 2018	AI&S 2018–AI & Society Academic Salon	Chengdu, China
Aug 2018	BDSC 2018–National Conference on Big Data & Social Computing	Shijiazhuang, China
Aug 2018	CCDM 2018–China Conference on Data Mining	Jinan, China
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

2018	Excellent Graduate Student Graduated, *Education Department in Sichuan*	(1%)
2018	Best Poster Award in the 2018 NetSciX Conference on Network Science	(Top 6)
2016	National Scholarship for Graduate Student, *Ministry of Education*	(5%)
2016	First-class Scholarship for Graduate Student, *UESTC*	(5%)
2016	CSC Scholarship, *China Scholarship Council & Ministry of Education*	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	(0.3%)
	COMAP, sponsored by SIAM, NSA and INFORMS	

2011	**Outstanding Student** of the University, *UESTC*	(0.2%)
	awarded by the principal's office, the highest honor for undergraduates	
2009-2011	National Inspiration Scholarship, *Ministry of Education*	(5%)

Review Services

Reviewer	Journal of the Royal Society Interface, *Royal Society Publishing*	2018-
	International Journal of Modern Physics C (IJMPC), *World Scientific Publishing*	2018-
	Physica Scripta, *IOP Publishing*	2018-
	Physics Letters A (PLA), *Elsevier B.V.*	2017-
	Knowledge-Based Systems (KBS), *Elsevier B.V.*	2017-
	Computer Standards and Interfaces (CSI), *Elsevier B.V.*	2017-
	Physica A, *Elsevier B.V.*	2016-
	IEEE Transactions on Knowledge and Data Engineering (TKDE), *IEEE Press*	2016-
	Journal of Computational Methods in Sciences and Engineering (JCMSE), *IOS Press*	2016-
	Journal of University of Electronic Science and Technology of China, *UESTC Press*	2014-

Skills

Computing	MATLAB (practical), Python (basic)	◇ Visualization: OriginLab, Gephi, D3, AI
Language	English (fluent), Chinese (native)	◇ Typesetting: LaTeX, 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
Collective Learning Group, MIT Media Lab, Massachusetts Institute of Technology