Dr. Haitao (Heather) Zheng

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EDUCATION

Ph.D., University of Maryland, College Park, MD

Electrical and Computer Engineering, July 1999, Advisor: Prof. K. J. Ray Liu

B.S., Xi'an Jiaotong University, Xi'an, China

Electrical Engineering, July 1995, Special Young Gifted Class

EMPLOYMENT

Neubauer Professor, Department of Computer Science University of Chicago, Chicago IL	2017.7 – Present
Adjunct Professor , Department of Computer Science University of California, Santa Barbara, CA	2017.7 – Present
Professor , Department of Computer Science University of California, Santa Barbara, CA	2013.7 – 2017.6
Associate Professor , Department of Computer Science University of California, Santa Barbara, CA	2009.7 – 2013.6
Assistant Professor , Department of Computer Science University of California, Santa Barbara, CA	2005.8 – 2009.6
Project Lead & Researcher, Wireless and Networking Group Microsoft Research Asia, Beijing, China	2004.3 - 2005.7
Member of Technical Staff, Wireless Research Lab Bell-Labs, Lucent Technologies, Crawford Hill, NJ	1999.8 – 2004.2

HONORS AND AWARDS

- ACM Distinguished Scientists, 2019
- IEEE Fellow (Class of 2015)
- Google Faculty Research Award, 2012, 2014, 2016
- Research cited by MIT Technology Review, Boston Globe, LA Times, New York Times, ComputerWorld, etc.
- Best Practical Paper Award, ACM SIGMETRICS Conference, 2013
- Best Paper Finalist, ACM MobiCom Conference, 2008
- **Best Student Paper,** IEEE DySPAN Conference, 2007
- University of California Regents Junior Faculty Fellowship, 2007
- Life-time Fellow of World Technology Network, Top 5 in Communications, 2006
- MIT Technology Review 10 Emerging Technologies, 2006
- MIT Technology Review TR35, Top 35 Technology Innovators under Age of 35, 2005
- Bell-Labs President's Gold Award, Lucent Technologies, 2002
- George Harhalakis Outstanding Graduate Student Award, University of Maryland, 1998

PROFESSIONAL ACTIVITIES

Recent Technical Program Committees:

- **IMC,** ACM Internet Measurement Conference, **2015-2019**
- MobiCom, ACM International Conference on Mobile Computing and Networking, 2009-2013, 2015-2021
- Mobisys, ACM International Conference on Mobile Systems, Applications, and Services, 2017-2021
- NSDI, USENIX Symposium on Networked Systems Design and Implementation, 2013, 2017-2019
- **SIGMETRICS**, ACM SIGMETRICS Conference, **2021**

Conference Organization

- General (Co-)Chair, ACM Workshop on Hot Topics in Networks (HotNets), 2020
- Organizer: ARO workshop on Smart Installation, 2019
- **Steering Committee,** ACM International Conference on Mobile Computing and Networking (MobiCom), 2017 present
- Track Chair, Ubiquitous and Mobile Computing Track, International World Wide Web Conference (WWW), 2017
- **Technical Program Committee Co-Chair,** ACM International Conference on Mobile Computing and Networking (MobiCom), 2015
- **Technical Program Committee Co-Chair,** IEEE International Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN), 2011

Editorship

- Chair, SIGMOBILE Research Highlights, 2019 -- present
- Steering Committee, IEEE Transactions on Networking, 2020 -- present
- Selection Committee, ACM SIGCOMM Test of Time Award, 2017
- Committee Member, SIGMOBILE Research Highlights, 2016-2018
- Steering Committee, IEEE Transactions on Mobile Computing, 2013 2017
- Associate Editor, IEEE Transactions on Networking, 2013.7 2017
- **Associate Editor**, IEEE Transactions on Mobile Computing, 2008 2013.7
- Editorial Board, Elsevier Physical Communications, 2008 present

PUBLICATIONS

Journal Articles

- Gang Wang, Bolun Wang, Tianyi Wang, Ana Nika, Haitao Zheng and Ben Y. Zhao, "Ghost Riders: Sybil Attacks on Crowdsourced Mobile Mapping Services," ACM/IEEE Transactions on Networking, Vol. 26, Iss. 3, pgs 1123-1136, June 2018
- 2. Gang Wang, Xinyi Zhang, Shiliang Tang, Christo Wilson, Haitao Zheng, and Ben Y. Zhao, "Clickstream User Behavior Models," *ACM Transactions on the Web (TWEB)*, Vol. 11, Issue 4, September 2017.
- 3. Tianyi Wang, Gang Wang, Bolun Wang, Divya Sambasivan, Zengbin Zhang, Xing Li, Haitao Zheng and Ben Y. Zhao, "Value and Misinformation in Collaborative Investing Platforms," *ACM Transactions on the Web (TWEB)*, Vol. 11, Issue 2, May 2017.

- 4. Ana Nika, Zengbin Zhang, Ben Y. Zhao and Haitao Zheng, "Towards Practical Spectrum Permits," *IEEE Transactions on Cognitive Communications and Networking (TCCN)*, 2017, Vol. 3, Issue 1, March 2017.
- 5. Qingyun Liu, Xiaohan Zhao, Walter Willinger, Xiao Wang, Ben Y. Zhao and Haitao Zheng, "Self-similarity in Social Network Dynamics," *ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS)*, Vol. 2, Issue 1, November 2016
- 6. Tianyi Wang, Yang Chen, Yi Wang, Bolun Wang, Gang Wang, Xing Li, Haitao Zheng, Ben Y. Zhao, "The Power of Comments: Fostering Social Interactions in Microblog Networks," Frontiers of Computer Science, Vol. 10, No. 5, Pgs. 889-907, 2016
- 7. Ana Nika, Asad Ismail, Ben Y. Zhao, Sabrina Gaito, Gian Paolo Rossi, Haitao Zheng, "Understanding and Predicting Data Hotspots in Cellular Networks," *Mobile Networks and Applications*, Vol. 21, No. 3, Pgs. 402-413, December 2015
- 8. Xia Zhou, Zengbin Zhang, Gang Wang, Xiaoxiao Yu, Ben Y. Zhao and Haitao Zheng, "Practical Conflict Graph in the Wild," *ACM/IEEE Transactions on Networking* (ToN), vol. 23, No. 3, June 2015.
- 9. Vinod Kone, Haitao Zheng, Ant Rowstron, Greg O'Shea and Ben Y. Zhao, "Measurement-based Design of Roadside Content Delivery Systems," *IEEE Transactions on Mobile Computing* (TMC), vol. 12, no. 6, 1160-1173, June 2013. **Featured Spotlight Paper**
- 10. Vinod Kone, Lei Yang, Xue Yang, Ben Y. Zhao and Haitao Zheng, "The Effectiveness of Opportunistic Spectrum Access: A Measurement Study," *ACM/IEEE Transactions on Networking* (ToN), vol. 20, iss. 6, 2005-2016, December 2012.
- 11. Lili Cao and Haitao Zheng, "Balancing Reliability and Utilization in Dynamic Spectrum Access," *IEEE/ACM Transaction on Networking* (ToN), vol. 20, iss. 3, 651-661, June 2012.
- 12. Lei Yang, Zengbin Zhang, Wei Hou, Ben Y. Zhao, and Haitao Zheng, "Papyrus: A Software Platform for Distributed Dynamic Spectrum Sharing Using SDRs," *ACM Computer Communication Review* (CCR), January 2011.
- 13. Krishna P. N. Puttaswamy, Haitao Zheng and Ben Y. Zhao, "Securing Structured Overlays Against Identity Attacks," *IEEE Transactions on Parallel and Distributed Systems*, vol. 20, no. 10, 1487-1498, October 2009.
- 14. Lili Cao and Haitao Zheng, "Understanding the Power of Distributed Coordination in Spectrum Management," ACM/Springer Mobile Networks and Applications (MONET), Special Issue on Cognitive Radio Oriented Wireless Networks and Communications, vol. 13, Iss. 5, 477-497, October 2008.
- 15. Lei Yang, Lili Cao and Haitao Zheng, "Proactive Channel Access in Dynamic Spectrum Networks," *Elsevier Physical Communication*, Vo.1, Iss. 2, 103--111, June 2008.
- 16. Yan Zhu and Haitao Zheng, "Understanding the Impact of Interference on Collaborative Relays," *IEEE Transaction on Mobile Computing*, vol. 7, num. 6, 724-736, June 2008.
- 17. Sorabh Gandhi, Chiranjeeb Buragohain, Lili Cao, Haitao Zheng and Subhash Suri, "Towards Real-Time Dynamic Spectrum Auctions," *Computer Networks* (Elsevier), Special Issue on Cognitive Wireless Networks, vol. 52, iss. 5, 879-897, March 2008.

- 18. Lili Cao and Haitao Zheng, "Distributed Rule-Regulated Spectrum Sharing," *IEEE Journal on Selected Areas in Communications* (JSAC), Special Issue on Cognitive Radio: Theory and Applications, vol. 26, iss. 1, 130-145, January 2008.
- 19. Vinod Kone, Sudipto Das, Ben Y. Zhao and Haitao Zheng, "QUORUM-QUality Of service RoUting in wireless Mesh networks," *ACM/Springer Mobile Networks and Applications* (MONET), Special Issue on Advances in Heterogeneous Networking, vol. 12, no. 5-6, 358-369, December 2007.
- 20. Jun Zhao, Haitao Zheng and Guanghua Yang, "Spectrum Sharing through Distributed Coordination in Dynamic Spectrum Access Networks," *Wireless Communications and Mobile Computing*, Special issue on Cognitive and software defined radio, and adaptive wireless communication systems, vol. 7, iss. 9, 1061-1075, November 2007.
- 21. Gayatri Swamynathan, Ben Y. Zhao, Kevin C. Almeroth and Haitao Zheng, "Globally Decoupled Reputations for Large Distributed Networks," *Advances in Multimedia*, vol. 2007, no. 1, January 2007.
- 22. Chunyi Peng, Haitao Zheng, Ben Y. Zhao, "Utilization and Fairness in Spectrum Assignment for Opportunistic Spectrum Access," *ACM Mobile Networks and Applications* (MONET), vol. 11, iss. 4, 555-576, August 2006.
- 23. Suman Das, Thierry Klein, Kin Leung, Sayandev Mukherjee, Gee Rittenhouse, Louis Samuel, Harish Viswanathan and Haitao Zheng, "Distributed paging and registration in wireless networks," *IEEE Network Magazine*, vol. 19, no. 5, 19--25, October 2005.
- 24. Jie Chen, Tiejun Lv and Haitao Zheng, "Joint Cross-layer Design for Wireless QoS Content Delivery," *EURASIP Journal on Applied Signal Processing*, Special Issue on Cross Layer Interaction for Communications, vol. 2005, iss. 1, 167-182, January 2005.
- 25. Haitao Zheng and Harish Viswanathan, "Optimizing ARQ Performance in High Speed Downlink Systems with Scheduling," *IEEE Transactions on Wireless Communications*, vol. 4, iss. 2, 495-506, March 2005.
- 26. Haitao Zheng, Angel Lozano and Mohammed Haleem, "Multiple ARQ Processes for MIMO Systems," *EURASIP Journal on Applied Signal Processing*, Special Issue on MIMO Systems and Signal Processing, vol. 2004, no. 5, 772-782, May 2004.
- 27. Haitao Zheng and Joyce Boyce, "An Improved UDP Protocol for Video Transmission over Internet-to-Wireless Networks," *IEEE Transactions on Multimedia*, vol. 3, no. 3, 356-365, September 2001.
- 28. Haitao Zheng and K.J. Ray Liu, "Optimization Approaches for Delivering Multimedia Services over Digital Subscriber Lines," *IEEE Signal Processing Magazine*, vol. 17, no. 4, 44-60, July 2000.
- 29. Haitao Zheng and K.J. Ray. Liu, "Power Minimization for Delivering Integrated Multimedia Services Over Digital Subscriber Line," *IEEE Journal of Selected Areas in Communications*, Special Issue on Error-Resilient Image and Video Transmission, vol. 18, no. 6, 841-849, , June 2000.
- 30. Haitao Zheng and K.J. Ray Liu, "The Subband Modulation: A Joint Power and Rate Allocation Framework for Subband Image and Video Transmission," *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 9, no. 5, 823-838, August 1999.
- 31. Haitao Zheng and K.J. Ray Liu, "Robust Image and Video Transmission over Spectrally Shaped Channel Using Multicarrier Modulation," *IEEE Transactions on Multimedia*, Vol. 1, No. 1, 88-103, March 1999.

Referred Conference and Workshop Publications

- 32. Emily Wenger, Josephine Passanati, Arjun Nitin Bhagoji, Yuanshun Yao, Haitao Zheng, Ben Y. Zhao, "Backdoor Attacks Against Deep Learning Systems in the Physical World," *Proceedings of IEEE Computer Vision and Pattern Recognition (CVPR)*, June 2021, to appear.
- 33. Yuxin Chen, Zhuolin Yang, Ruben Abbou, Pedro Lopes, Ben Y. Zhao, Haitao Zheng, "User Authentication via Electrical Muscle Stimulation," *Proceedings of ACM CHI Conference on Human Factors in Computing Systems (CHI)*, Yokohama Japan, May 2021, to appear.
- 34. Shawn Shan, Emily Wenger, Bolun Wang, Bo Li, Haitao Zheng, Ben Y. Zhao, "Gotta Catch 'em All: Using Honeypots to Catch Adversarial Attacks on Neural Networks," *Proceedings of ACM Conference on Computer and Communications Security (CCS)*, Orlando, FL, November 2020.
- 35. Shawn Shan, Emily Wenger, Jiayun Zhang, Huiying Li, Haitao Zheng, Ben Y. Zhao, "Fawkes: Protecting Privacy against Unauthorized Deep Learning Models," *Proceedings of USENIX Security Symposium (USENIX Security)*, Boston MA, August 2020.
- 36. Jenna Cryan, Shiliang Tang, Xinyi Zhang, Miriam Metzger, Haitao Zheng, Ben Y. Zhao, "Detecting Gender Stereotypes: Evaluation and Integration of Lexicon and Supervised Learning," *Proceedings of ACM CHI Conference on Human Factors in Computing Systems (CHI)*, Honolulu, HI, April 2020.
- 37. Yuxin Chen, Huiying Li, Shan-Yuan Teng, Steven Nagels, Zhijing Li, Pedro Lopes, Ben Y. Zhao, Haitao Zheng, "Wearable Microphone Jamming," *Proceedings of ACM CHI Conference on Human Factors in Computing Systems (CHI)*, Honolulu, HI, April 2020.
- 38. Yanzi Zhu, Zhujun Xiao, Yuxin Chen, Zhijing Li, Max Liu, Ben Y. Zhao, Haitao Zheng, "Et Tu Alexa? When Commodity WiFi Devices Turn into Adversarial Motion Sensors," *Proceedings of Network and Distributed System Security Symposium (NDSS)*, San Diego, CA, February 2020.
- 39. Yuanshun Yao, Huiying Li, Haitao Zheng, Ben Y. Zhao, "Latent Backdoor Attacks on Deep Neural Networks," *Proceedings of ACM Conference on Computer and Communications Security (CCS)*, London UK, November 2019.
- 40. Bingchuan Tian, Xinyi Zhang, Ennan Zhai, Hongqiang Harry Liu, Qiaobo Ye, Chunsheng Wang, Xin Wu, Zhiming Ji, Yihong Sang, Ming Zhang, Da Yu, Chen Tian, Haitao Zheng, Ben Y. Zhao, "Safely and Automatically Updating In-Network ACL Configurations with Intent Language," *Proceedings of ACM SIGCOMM*, Beijing, China, August 2019.
- 41. Zhijing Li, Zhujun Xiao, Bolun Wang, Ben. Y. Zhao and Haitao Zheng, "Scaling Deep Learning Models for Spectrum Anomaly Detection," *Proceedings of 20th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, Catania, Italy, July 2019.
- 42. Bolun Wang, Yuanshun Yao, Shawn Shan, Huiying Li, Bimal Viswanath, Haitao Zheng and Ben Y. Zhao, "Neural Cleanse: Identifying and Mitigating Backdoor Attacks in Neural Networks," *Proceedings of 40th IEEE Symposium on Security and Privacy (Oakland)*, San Francisco, CA, May 2019.
- 43. Shiliang Tang, Ziming Wu, Xinyi Zhang, Gang Wang, Xiaojuan Ma, Haitao Zheng and Ben Y. Zhao, "Towards Understanding the Adoption and Social Experience of Digital Wallet Systems," Proceedings of Hawaii International Conference on System Sciences, Maui HI, January 2019
- 44. Zhijing Li, Zihui Ge, Ajay Mahimkar, Jia Wang, Ben Y. Zhao, Haitao Zheng, Joanne Emmons, and Laura Ogden, "Predictive Analysis in Network Function Virtualization," *Proceedings of 18th ACM SIGCOMM Internet Measurement Conference (IMC)*, Boston MA, November 2018

- 45. Bolun Wang, Yuanshun Yao, Bimal Viswanath, Haitao Zheng and Ben Y. Zhao, "With Great Training Comes Great Vulnerability: Practical Attacks against Transfer Learning," *Proceedings of 27th USENIX Security Symposium*, Baltimore, MD, August 2018
- 46. Xinyi Zhang, Shawn Shan, Shiliang Tang, Haitao Zheng and Ben Y. Zhao, "Penny Auctions are Predictable: Predicting and profiling user behavior on DealDash," *Proceedings of ACM Conference on Hypertext and Social Media (HT)*, Baltimore, MD, July 2018
- 47. Shiliang Tang, Xinyi Zhang, Jenna Cryan, Miriam Metzger, Haitao Zheng and Ben Y. Zhao, "Gender Bias in the Job Market: a Longitudinal Analysis," *Proceedings of the 21st ACM conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, Jersey City, NJ, November 2018
- 48. Zhijing Li, Zhujun Xiao, Yanzi Zhu, Irene Pattarachanyakul, Ben Y. Zhao, Haitao Zheng, "Adversarial Localization against Wireless Cameras," *Proceedings of the 19th International Workshop on Mobile Computing Systems and Applications (HotMobile)*, Tempe AZ, February 2018
- 49. Huan Yan, Tzu-Heng Lin, Gang Wang, Yong Li, Haitao Zheng, Depeng Jin and Ben Y. Zhao, "On Migratory Behavior in Video Consumption," *Proceedings of the 26th ACM International Conference on Information and Knowledge Management (CIKM)*, Singapore, November 2017.
- 50. Yuanshun Yao, Zhujun Xiao, Bolun Wang, Bimal Viswanath, Haitao Zheng and Ben Y. Zhao, "Complexity vs. Performance: Empirical Analysis of Machine Learning as a Service," *Proceedings of the 17th ACM SIGCOMM Internet Measurement Conference (IMC)*, London, UK, November 2017.
- 51. Yuanshun Yao, Bimal Viswanath, Jenna Cryan, Haitao Zheng and Ben Y. Zhao, "Automated Crowdturfing Attacks and Defenses in Online Review Systems," *Proceedings of ACM Conference on Computer and Communications Security (CCS)*, Dallas TX, October 2017
- 52. Yanzi Zhu, Yuanshun Yao, Ben Y. Zhao and Haitao Zheng, "Object Recognition and Navigation using a Single Networking Device," *Proceedings of the 15th ACM International Conference on Mobile Systems, Applications, and Services (MobiSys 2017)*, Niagara Falls, NY, June 2017.
- 53. Xinyi Zhang, Shiliang Tang, Yun Zhao, Gang Wang, Haitao Zheng, and Ben Y. Zhao, "Cold Hard E-Cash: Friends and Vendors in the Venmo Digital Payments System," *Proceedings of International AAAI Conference on Web and Social Media (ICWSM 2017)*, Montreal, Canada, May 2017.
- 54. Shiliang Tang, Qingyun Liu, Megan McQueen, Scott Counts, Apurv Jain, Haitao Zheng, and Ben Y. Zhao, "Echo Chambers in Investment Discussion Boards," *Proceedings of International AAAI Conference on Web and Social Media (ICWSM 2017)*, Montreal, Canada, May 2017.
- 55. Zhijing Li, Ana Nika, Xinyi Zhang, Yanzi Zhu, Yuanshun Yao, Ben Y. Zhao and Haitao Zheng, "Identifying Value in Crowdsourced Wireless Signal Measurements," *Proceedings of the 26th World Wide Web Conference (WWW)*, Perth, Australia, April 2017.
- 56. Maryam Eslami Rasekh, Zhinus Marzi, Yanzi Zhu, Upamanyu Madhow, Haitao Zheng, "Noncoherent mmWave Path Tracking," *Proceedings of the 18the ACM Workshop on Mobile Computing Systems and Applications* (HotMobile), Sonoma, CA, February 2017
- 57. Yanzi Zhu, Yibo Zhu, Ana Nika, Ben Y. Zhao and Haitao Zheng, "Trimming the Smartphone Network Stack," *Proceedings of the 15th ACM Workshop on Hot Topics in Networks (HotNets)*, Atlanta, GA, November 2016.
- 58. Qingyun Liu, Shiliang Tang, Xinyi Zhang, Xiaohan Zhao, Ben Y. Zhao and Haitao Zheng, "Network Growth and Link Prediction Through an Empirical Lens," *Proceedings of the 16th ACM SIGCOMM Internet Measurement Conference (IMC 2016)*, Santa Monica, CA, November 2016.

- 59. Bolun Wang, Xinyi Zhang, Gang Wang, Haitao Zheng, Ben Y. Zhao, "Anatomy of a Personalized Livestreaming System," *Proceedings of the 16th ACM SIGCOMM Internet Measurement Conference (IMC 2016)*, Santa Monica, CA, November 2016.
- 60. Ana Nika, Zhijing Li, Yanzi Zhu, Yibo Zhu, Ben Y. Zhao, Xia Zhou, and Haitao Zheng, "Empirical Validation of Commodity Spectrum Monitoring," *Proceedings of ACM Conference on Embedded Networked Sensor Systems (SenSys 2016)*, Stanford, CA, November 2016.
- 61. Gang Wang, Sarita Y. Schoenebeck, Haitao Zheng, Ben Y. Zhao, ""Will Check-in for Badges": Understanding Bias and Misbehavior on Location-based Social Networks," *Proceedings of the 10th International AAAI Conference on Web and Social Media (ICWSM 2016)*, Cologne, Germany, May 2016.
- 62. Gang Wang, Bolun Wang, Tianyi Wang, Ana Nika, Haitao Zheng, Ben Y. Zhao, Defending against Sybil Devices in Crowdsourced Mapping Services," *Proceedings of the 14th ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, Singapore, June 2016.
- 63. Gang Wang, Xinyi Zhang, Shiliang Tang, Haitao Zheng, Ben Y. Zhao, "Unsupervised Clickstream Clustering For User Behavior Analysis," *Proceedings of SIGCHI Conference on Human Factors in Computing Systems (CHI)*, San Jose, CA, May 2016.
- 64. Xiaohan Zhao, Qingyun Liu, Haitao Zheng, and Ben Y. Zhao, "Towards Graph Watermarks," *Proceedings of the 3rd ACM Conference in Online Social Networks* (COSN), Stanford, CA, November 2015.
- 65. Yanzi Zhu, Yibo Zhu, Ben Y. Zhao and Haitao Zheng, "Reusing 60GHz Radios for Mobile Radar Imaging," *Proceedings of the 21st Annual International Conference on Mobile Computing and Networking (MobiCom)*, Paris, France, September 2015.
- 66. Yibo Zhu, Nanxi Kang, Jiaxin Cao, Albert Greenberg, Guohan Lu, Ratul Mahajan, Dave Maltz, Lihua Yuan, Ming Zhang, Haitao Zheng and Ben Y. Zhao, "Packet-Level Telemetry in Large Datacenter Networks," *Proceedings of ACM SIGCOMM*, London, UK, August 2015.
- 67. Ana Nika, Yibo Zhu, Ning Ding, Abhilash Jindal, Y. Charlie Hu, Xia Zhou, Ben Y. Zhao and Haitao Zheng, "Energy and Performance of Smartphone Radio Bundling in Outdoor Environments," *Proceedings of the 24th International World Wide Web Conference (WWW)*, Florence, Italy, May 2015.
- 68. Yibo Zhu, Yanzi Zhu, Zengbin Zhang, Ben Y. Zhao, Haitao Zheng, "60GHz Mobile Imaging Radar," *Proceedings of the 16th ACM Workshop on Mobile Computing Systems and Applications* (HotMobile), Santa Fe, NM, February 2015.
- 69. Gang Wang, Tianyi Wang, Bolun Wang, Divya Sambasivan, Zengbin Zhang, Haitao Zheng, Ben Y. Zhao, "Crowds on Wall Street: Extracting Value from Collaborative Investing Platforms," Proceedings of the 18th ACM conference on Computer-Supported Cooperative Work and Social Computing (CSCW), Vancouver BC, Canada, March 2015.
- 70. Gang Wang, Bolun Wang, Tianyi Wang, Ana Nika, Haitao Zheng, Ben Y. Zhao, "Whispers in the Dark: Analysis of an Anonymous Social Network," *Proceedings of the 14th ACM SIGCOMM Internet Measurement Conference (IMC)*, Vancouver BC, Canada, November 2014.
- 71. Ana Nika, Zengbin Zhang, Xia Zhou, Ben Y. Zhao, Haitao Zheng, "Towards Commoditized Real-time Spectrum Monitoring," *Proceedings of the 1st ACM Workshop on Hot Topics in Wireless (HotWireless)*, Maui, HI, September 2014.

- 72. Yibo Zhu, Xia Zhou, Zengbin Zhang, Lin Zhou, Amin Vahdat, Ben Y. Zhao, Haitao Zheng, "Cutting the Cord: A Robust Wireless Facilities Network for Data Centers," *Proceedings of the 20th Annual International Conference on Mobile Computing and Networking (MobiCom)*, Maui, HI, September 2014.
- 73. Yibo Zhu, Zengbin Zhang, Zhinus Marzi, Chris Nelson, Upamanyu Madhow, Ben Y. Zhao, Haitao Zheng, "Demystifying 60GHz Outdoor Picocells," *Proceedings of the 20th Annual International Conference on Mobile Computing and Networking (MobiCom)*, Maui, HI, September 2014.
- 74. Ana Nika, Asad Ismail, Ben Y. Zhao, Sabrina Gaito, Haitao Zheng, "Understanding Data Hotspots in Cellular Networks," *Proceedings of the 10th International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine)*, Rhodes, Greece, August 2014.
- 75. Gang Wang, Tianyi Wang, Haitao Zheng, Ben Y. Zhao, "Man vs. Machine: Practical Adversarial Detection of Malicious Crowdsourcing Workers," *Proceedings of the 23rd USENIX Security Symposium (Usenix Security)*, San Diego, CA, August 2014.
- 76. Matteo Zignani, Sabrina Gaito, Gian Paolo Rossi, Xiaohan Zhao, Haitao Zheng and Ben Y. Zhao, "Link and Triadic Closure Delay: Temporal Metrics for Social Network Dynamics," *Proceedings of the 8th AAAI International Conference on Weblogs and Social Media (ICWSM)*, Ann Arbor, MI, June 2014.
- 77. Xiaohan Zhao, Adelbert Chang, Atish Das Sarma, Haitao Zheng and Ben Y. Zhao, "On the Embeddability of Random Walk Distances," *Proceedings of the VLDB Endowment*, Vol. 6, No. 14. Presentation at 40th International Conference on Very Large Data Bases (VLDB/PVLDB), Hangzhou, China, September, 2014.
- 78. Zengbin Zhang, Lin Zhou, Xiaohan Zhao, Gang Wang, Yu Su, Miriam Metzger, Haitao Zheng and Ben Y. Zhao, "On the Validity of Geosocial Mobility Traces," *Proceedings of ACM Workshop on Hot Topics in Networks* (HotNets-XII), College Park, MD, November 2013.
- 79. Gianluca Stringhini, Gang Wang, Manuel Egele, Christopher Kruegel, Giovanni Vigna, Haitao Zheng, Ben Y. Zhao, "Follow the Green: Growth and Dynamics in Twitter Follower Markets," *Proceedings of the 13th ACM SIGCOMM Internet Measurement Conference* (IMC), Barcelona, Spain, October 2013.
- 80. Gang Wang, Tristan Konolige, Christo Wilson, Xiao Wang, Haitao Zheng and Ben Y. Zhao, "You are How You Click: Clickstream Analysis for Sybil Detection," *Proceedings of the 22nd USENIX Security Symposium*, Washington DC, August 2013.
- 81. Gang Wang, Konark Gill, Manish Mohanlal, Haitao Zheng and Ben Y. Zhao, "Wisdom in the Social Crowd: an Analysis of Quora," *Proceedings of the 22nd International World Wide Web Conference* (WWW), Rio de Janeiro, Brazil, May 2013.
- 82. Xia Zhou, Zengbin Zhang, Gang Wang, Xiaoxiao Yu, Ben Y. Zhao and Haitao Zheng, "Practical Conflict Graphs for Dynamic Spectrum Distribution," *Proceedings of ACM SIGMETRICS*, Pittsburgh, PA, June 2013. **Best Practical Paper Award**
- 83. Gang Wang, Manish Mohanlal, Christo Wilson, Xiao Wang, Miriam Metzger, Haitao Zheng and Ben Y. Zhao, "Social Turing Tests: Crowdsourcing Sybil Detection," *Proceedings of the 20th Network & Distributed System Security Symposium* (NDSS), San Diego, CA, February 2013.
- 84. Xiaohan Zhao, Alessandra Sala, Christo Wilson, Xiao Wang, Sabrina Gaito, Haitao Zheng and Ben Y. Zhao, "Multi-scale Dynamics in a Massive Online Social Network," *Proceedings of ACM SIGCOMM Internet Measurement Conference* (IMC), Boston, MA, November 2012.
- 85. Sabrina Gaito, Matteo Zignani, Gian Paolo Rossi, Alessandra Sala, Xiaohan Zhao, Haitao Zheng

- and Ben Y. Zhao, "On the Bursty Evolution of Online Social Networks," *Proceedings of ACM KDD HotSocial Workshop*, Beijing, China, August 2012.
- 86. Xia Zhou, Zengbin Zhang, Yibo Zhu, Yubo Li, Saipriya Kumar, Amin Vahdat, Ben Y. Zhao and Haitao Zheng, "Mirror Mirror on the Ceiling: Flexible Wireless Links for Data Centers," *Proceedings of ACM SIGCOMM*, Helsinki, Finland, August 2012.
- 87. Lei Yang, Zengbin Zhang, Ben Y. Zhao, Christopher Kruegel and Haitao Zheng, "Enforcing Dynamic Spectrum Access with Spectrum Permits," *Proceedings of the 13th International Symposium on Mobile Ad Hoc Networking and Computing* (MobiHoc), Hilton Head Island, SC, June 2012.
- 88. Gang Wang, Christo Wilson, Xiaohan Zhao, Yibo Zhu, Manish Mohanlal, Haitao Zheng and Ben Y. Zhao, "Serf and Turf: Crowdturfing for Fun and Profit," *Proceedings of the 20th International World Wide Web Conference* (WWW), Lyon, France, April 2012.
- 89. Weile Zhang, Xia Zhou, Lei Yang, Zengbin Zhang, Ben Y. Zhao and Haitao Zheng, "3D Beamforming for Wireless Data Centers," *Proceedings of the 10th ACM Workshop on Hot Topics in Networks* (HotNets-X), Cambridge, MA, November 2011.
- 90. Alessandra Sala, Xiaohan Zhao, Christo Wilson, Haitao Zheng and Ben Y. Zhao, "Sharing Graphs using Differentially Private Graph Models," *Proceedings of the 11th Internet Measurement Conference* (IMC), Berlin, Germany, November 2011
- 91. Xiaohan Zhao, Alessandra Sala, Haitao Zheng and Ben Y. Zhao, "Efficient Shortest Paths on Massive Social Graphs," *Proceedings of the 7th International Conference on Collaborative Computing:* Networking, Applications and Worksharing (CollaborateCom), Orlando, FL, October 2011.
- 92. Zengbin Zhang, Xia Zhou, Weile Zhang, Yuanyang Zhang, Gang Wang, Ben Y. Zhao and Haitao Zheng, "I am the Antenna: Accurate Outdoor AP Location using Smartphones," *Proceedings of the 17th Annual International Conference on Mobile Computing and Networking* (MobiCom), Las Vegas, NV, September 2011.
- 93. Lara Deek, Xia Zhou, Kevin Almeroth and Haitao Zheng, "To Preempt or Not: Tackling Bid and Time-based Cheating in Online Spectrum Auctions," *Proceedings of IEEE International Conference on Computer Communications* (INFOCOM), Shanghai, China, April 2011.
- 94. Vinod Kone, Lei Yang, Xue Yang, Ben Y. Zhao and Haitao Zheng, "On the Feasibility of Effective Opportunistic Spectrum Access," *Proceedings of the 10th Internet Measurement Conference* (IMC), Melbourne, Australia, November 2010.
- 95. Lei Yang, Ben Y. Zhao and Haitao Zheng, "The Spaces Between Us: Setting and Maintaining Boundaries in Wireless Spectrum Access," *Proceedings of the 16th Annual International Conference on Mobile Computing and Networking* (MobiCom), Chicago, IL, September 2010.
- 96. Xia Zhou and Haitao Zheng, "Breaking Bidder Collusion in Large-Scale Spectrum Auctions," Proceedings of the 11th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc), Chicago, IL, September 2010.
- 97. Xiaohan Zhao, Alessandra Sala, Christo Wilson, Haitao Zheng and Ben Y. Zhao," Orion: Shortest Path Estimation for Large Social Graphs," *Proceedings of the 3rd Workshop on Online Social Networks* (WOSN), Boston MA, June 2010.
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