

# Ben Y. Zhao

Neubauer Professor of Computer Science  
University of Chicago

ravenben at cs dot uchicago dot edu  
361 Crerar, University of Chicago  
twitter: @ravenben  
<https://people.cs.uchicago.edu/~ravenben>

## EDUCATION

<b>University of California at Berkeley</b> Ph.D. in Computer Science: advisors John Kubiatawicz and Anthony Joseph M.S. in Computer Science: advisor Anthony Joseph	<b>Berkeley, CA</b> August, 2004 December, 2000
<b>Yale University</b> B.S. in Computer Science Graduated Cum Laude and Distinction in the Major	<b>New Haven, CT</b> May, 1997

## RESEARCH INTERESTS

Machine Learning   Human Computer Interaction   Security and Privacy   Internet Measurements  
Distributed Systems   Mobile and Wireless Networks   Online Social Networks

## APPOINTMENTS

<b>University of Chicago</b> Neubauer Professor of Computer Science	<b>Chicago, IL</b> July 2017 — Present
<b>University of California at Santa Barbara</b> Professor of Computer Science Associate Professor of Computer Science Assistant Professor of Computer Science	<b>Santa Barbara, CA</b> July 2014 — June 2017 July 2010 — June 2014 July 2004 — June 2010
<b>Microsoft Research, Cambridge UK</b> Visiting Researcher	<b>Cambridge, UK</b> July 2007 — August 2007
<b>University of California at Berkeley</b> Graduate Student Researcher Principal architect of the Tapestry structured peer-to-peer network and founding member of the OceanStore project on highly persistent global-scale storage.	<b>Berkeley, CA</b> August 1997 — June 2004

## HONORS AND AWARDS

- **Publications with 35,000+ academic citations, H-Index = 76** (Google Scholar)
- **Forbes 30 Under 30 (2024)** for 3 advisees (Shawn Shan, Jenna Cryan, Emily Wenger)
- **Chicago Innovation Award (2023)**, for Glaze
- **TIME Magazine Best Inventions (2023)** - Special Mention, Glaze
- **USENIX Internet Defense Prize (2023)**, Glaze
- **Distinguished Paper Award, USENIX Security Symposium 2023** (Glaze)
- **ACM Fellow**, 2021
- **Best Paper Honorable Mention Award, CHI 2020** (Wearable Microphone Jammer)
- **Best Paper Honorable Mention Award, CHI 2020** (Detecting Gender Stereotypes)
- **Most Influential Paper Award, ASPLOS 2018**, (OceanStore paper ASPLOS 2000)
- **IEEE Internet Technical Committee, Early Career Award**, 2014
- **Best Practical Paper Award, ACM SIGMETRICS 2013**
- **Google Faculty Award**, 2011
- **UCSB Regent Faculty Fellowship**, 2009
- **ComputerWorld Magazine Top IT Innovators under 40**, 2007
- **MIT Technology Review TR-35 (Top 35 Technological Innovators under Age 35)**, 2006

- **NSF Young Faculty Investigator (CAREER) Award**, 2005
- **Best Student Paper Award**, *USENIX Conference on File and Storage Technologies (FAST)*, 2003
- **Best Paper Award**, *ACM MSWiM*, 2001
- **Best Paper Award**, *IEEE Computer Networks*, 2001
- **U. C. Regents Fellowship**, 1998
- **Cum Laude, Distinction in Major and Tau Beta Pi**, Yale University, 1997

## PROFESSIONAL AFFILIATIONS

Member, **Fellow (2021)**, Association for Computing Machinery (ACM)

Member, ACM SIGOPS, ACM SIGCOMM, ACM SIGSAC

Member of USENIX

Member of IEEE

## PROFESSIONAL ACTIVITIES

### Conference Organization

- **Steering Committee**, IEEE Conference on Secure and Trustworthy Machine Learning (SaTML), 2023-Present
- **Steering Committee**, ACM Workshop on Hot Topics in Networks (HotNets), 2021-2023
- **General (Co-)Chair**, ACM Workshop on Hot Topics in Networks (HotNets), 2020
- **Program (Co-)Chair**, ACM SIGCOMM Internet Measurement Conference (IMC), 2018
- **Program (Co-)Chair**, International World Wide Web Conference (WWW), 2016
- **Steering Committee**: International Symposium on Complex Networks (COMPLEX)
- **Co-founder, Steering Committee**: ACM Conference on Online Social Networks (COSN)
- **Program Track Chair: Social Networks and Graph Analysis**, International World Wide Web Conference (WWW), 2013
- **Program Co-Chair**, SIGCOMM Workshop on Online Social Networks (WOSN), 2012
- **Program Co-Chair**, IEEE Conference on Peer-to-Peer Computing (P2P), 2010
- **Global Chair**, European Conference on Parallel Processing (Euro-Par) Topic 7, 2009
- **Steering Committee**, International Workshop on Peer-To-Peer Systems (IPTPS), 2007 - 2010
- **Program Co-Chair**, International Workshop on Peer-To-Peer Systems (IPTPS), 2006

### Selected Technical Program Committees

- **ACM Conference on Computer and Communications Security (CCS)**, 2021 – 2024
- **NeurIPS Area Chair**, 2023
- **ACM SIGCOMM**, 2019 (Heavy), 2020 (Extended), 2023
- **ACM/USENIX Symposium on Networked Systems, Design and Implementation (NSDI)**, 2014, 2020 (Heavy), 2022, 2023
- **ACM SIGCOMM Internet Measurement Conference (IMC)**, 2012, 2013, 2015, 2016, 2018-2020, 2022, 2023
- **IEEE Symposium on Security and Privacy (Oakland)**, 2015, 2016, 2021, 2022
- **ACM SIGOPS Workshop on Hot Topics in Systems (HotOS)**, 2021
- **ACM International Conference on Web Search and Data Mining (WSDM)**, 2013, 2017-2018, (Senior TPC) 2019-2020
- **AAAI Conference on Weblogs and Social Media (ICWSM)**, 2015-2019 (Senior PC), 2014

- **Privacy Enhancing Technologies Symposium (PETS)**, 2019
- **The International World Wide Web Conference (WWW)**, 2012 – 2019
- **ACM Conf. on emerging Networking EXperiments and Technologies (CoNEXT)**, 2011, 2016, 2018
- **ACM 9th Workshop on Hot Topics in Networks (HotNets)**, 2010, 2018
- **European Symposium on Research in Computer Security (ESORICS)**, 2016, 2017
- **ACM/IFIP/USENIX International Middleware Conference (Middleware)**, 2010, 2011, 2017
- **USENIX Workshop on Hot Topics in Cloud Computing (HotCloud)**, 2013, 2016
- **Passive and Active Measurements Conference (PAM)**, 2016
- **ACM Symposium on Cloud Computing (SOCC)**, 2015
- **ACM Web Science Conference (WebSci)**, 2014
- **ACM Conference on Online Social Networks (COSN)**, 2013, 2014, 2015
- **IEEE Annual Conference on Computer Communications (INFOCOM)**, 2008, 2009, 2010, 2013
- **ACM SIGCOMM International Workshop on Online Social Networks (WOSN)**, 2010, 2012
- **IEEE Conference on Peer-to-Peer Computing (P2P)**, 2009, 2010, 2012
- **ACM 12th Workshop on Mobile Computing Systems and Applications (HotMobile)**, 2011
- **IEEE Int’l Conference on Distributed Computing Systems (ICDCS)**, 2005-07, 2009, 2010, 2013
- **IEEE International Conference on Network Protocols (ICNP)**, 2006, 2007
- **IEEE International Workshop on Quality of Service (IWQoS)**, 2007
- **International Workshop on Peer-to-Peer Systems (IPTPS)**, 2005, 2006

#### Journals

- **Associate Editor**, ACM Transactions on the Web, 2017 — 2019.
- **Guest Editor**, Journal of Advances in Multimedia, Special Issue: “Towards Next-Generation Peer-to-Peer Services,” Hindawi, 2007.
- **Guest Editor**, Concurrency and Computation: Practice and Experience, Special Issue: “Recent Advances in Peer-to-Peer Systems and Security,” Wiley, 2007.

#### Other Appointments

- National Science Foundation (NSF) Invited Proposal Funding Panelist
  - CNS Panel: CISE Core, 2005-08, 2011-15
  - CNS Panel: CISE Cross-cutting, 2005, 2009-11, 2013, 2014, 2017-2022
  - CNS Panel: CAREER, 2006, 2007, 2012, 2019-2022
- Judge for MIT Technology Review Young Innovator (TR-35): 2008, 2010-11, 2013-2023
- Hong Kong Research Grants Council Panelist: 2007, 2009-2013, 2015-2017
- Qatar Computing Research Institute Research Panelist: 2011, 2013, 2014, 2017

## PUBLICATIONS

#### Journal Articles

1. “Trimming Mobile Applications for Bandwidth-Challenged Networks in Developing Regions.” Qinge Xie, Qingyuan Gong, Xinlei He, Yang Chen, Xin Wang, Haitao Zheng, Ben Y. Zhao. *IEEE Transactions on Mobile Computing (TMC)*, 2021
2. “On Migratory Behavior in Video Consumption.” Huan Yan, Haohao Fu, Yong Li, Tzu-Heng Lin, Gang Wang, Haitao Zheng, Depeng Jin, Ben Y. Zhao. *IEEE Transactions on Network and Service Management, Vol 18, No 2, Pgs 1775-1788*, 2021

3. “Ghost Riders: Sybil Attacks on Crowdsourced Mobile Mapping Services.” Gang Wang, Bolun Wang, Tianyi Wang, Ana Nika, Haitao Zheng, and Ben Y. Zhao. *ACM/IEEE Transactions on Networking*, Vol. 26, Issue 3, Pgs. 1123–1136, June 2018.
4. “Benefits of Browsing? The Prevalence, Nature, and Effects of Profile Consumption Behavior in Social Network Sites.” Miriam Metzger, Christo Wilson, and Ben Y. Zhao. *International Communication Association, Journal of Computer-Mediated Communication*, 2018.
5. “Clickstream User Behavior Models.” Gang Wang, Xinyi Zhang, Shiliang Tang, Christo Wilson, Haitao Zheng, and Ben Y. Zhao. *ACM Transactions on the Web (TWEB)*, Vol. 11, No. 4, Article 21, July 2017.
6. “Value and Misinformation in Collaborative Investing Platforms.” Tianyi Wang, Gang Wang, Bolun Wang, Divya Sambasivan, Zengbin Zhang, Xing Li, Haitao Zheng and Ben Y. Zhao. *ACM Transactions on the Web (TWEB)*, Vol. 11, No. 2, May 2017.
7. “Towards Practical Spectrum Permits.” Ana Nika, Zengbin Zhang, Ben Y. Zhao and Haitao Zheng. *IEEE Transactions on Cognitive Communications and Networking (TCCN)*, Vol. 3, No. 1, March 2017.
8. “Self-similarity in Social Network Dynamics.” Qingyun Liu, Xiaohan Zhao, Walter Willinger, Xiao Wang, Ben Y. Zhao and Haitao Zheng. *ACM Transactions on Modeling and Performance Evaluation of Computing Systems (TOMPECS)*, Vol. 2, No. 5, Pgs. 1–26, November 2016.
9. “The Power of Comments: Fostering Social Interactions in Microblog Networks.” Tianyi Wang, Yang Chen, Yi Wang, Bolun Wang, Gang Wang, Xing Li, Haitao Zheng, Ben Y. Zhao. *Frontiers of Computer Science*, Vol. 10, No. 5, Pgs. 889–907, 2016.
10. “Understanding and Predicting Data Hotspots in Cellular Networks.” Ana Nika, Asad Ismail, Ben Y. Zhao, Sabrina Gaito, Gian Paolo Rossi, Haitao Zheng. *Mobile Networks and Applications*, Vol. 21, December 2015.
11. “Practical Conflict Graphs in the Wild.” Xia Zhou, Zengbin Zhang, Gang Wang, Xiaoxiao Yu, Ben Y. Zhao and Haitao Zheng. *ACM/IEEE Transactions on Networking (ToN)*, Vol 23, No. 3, Pgs 824–835, June 2015.
12. “Uncovering Social Network Sybils in the Wild.” Zhi Yang, Christo Wilson, Xiao Wang, Tingting Gao, Ben Y. Zhao and Yafei Dai. *To appear: ACM Transactions on Knowledge Discovery from Data (TKDD)*, Vol. 8, No. 1, February 2014.
13. “Preserving Location Privacy in Geo-Social Applications.” Krishna P. N. Puttaswamy, Shiyuan Wang, Troy Steinbauer, Divyakant Agrawal, Amr El Abbadi, Christopher Kruegel and Ben Y. Zhao. *IEEE Transactions on Mobile Computing*, Vol. 13, No. 1, Pgs 159–173, January 2014.
14. “Understanding Latent Interactions in Online Social Networks.” Jing Jiang, Christo Wilson, Xiao Wang, Wenpeng Sha, Peng Huang, Yafei Dai and Ben Y. Zhao. *ACM Transactions on the Web (TWEB)*, Vol. 7, No. 4, October 2013.
15. “Measurement-based Design of Roadside Content Delivery Systems.” Vinod Kone, Haitao Zheng, Ant Rowstron, Greg O’Shea and Ben Y. Zhao. *IEEE Transactions on Mobile Computing*, Vol. 12, Number 6, Pgs. 1160–1173, June 2012. **Featured Spotlight Paper.**
16. “The Effectiveness of Opportunistic Spectrum Access: A Measurement Study.” Vinod Kone, Lei Yang, Xue Yang, Ben Y. Zhao and Haitao Zheng. *ACM/IEEE Transactions on Networking*, Vol. 20, Number 6, Pgs. 2005–2016, December 2012.
17. “Beyond Social Graphs: User Interactions in Online Social Networks and their Implications.” Christo Wilson, Alessandra Sala, Krishna P. N. Puttaswamy, and Ben Y. Zhao. *ACM Transactions on the Web*

- (*TWEB*), Vol. 6, No. 4, Article 17, November 2012.
18. "The Impact of Infostation Density on Vehicular Data Dissemination." Vinod Kone, Haitao Zheng, Antony Rowstron and Ben Y. Zhao. *ACM Mobile Networking and Applications (MONET)*, No. 16, Pgs. 807-819, 2011.
  19. "Protector: a Probabilistic Failure Detector for Cost-effective Peer-to-Peer Storage." Zhi Yang, Jian Tian, Wei Chen, Ben Y. Zhao and Yafei Dai. *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, Vol. 22, No. 9, Pgs. 1514-1527, September 2011.
  20. "AirLab: Consistency, Fidelity and Privacy in Wireless Measurements." Vinod Kone, Mariya Zheleva, Mike Wittie, Ben Y. Zhao, Elizabeth Belding, Haitao Zheng, Kevin Almeroth. *ACM SIGCOMM Computer Communication Review (CCR)*, Vol. 41, No. 1, Pgs. 60-65, January 2011.
  21. "Papyrus: A Software Platform for Distributed Dynamic Spectrum Sharing Using SDRs." Lei Yang, Zengbin Zhang, Wei Hou, Ben Y. Zhao, and Haitao Zheng. *ACM SIGCOMM Computer Communication Review (CCR)*. Vol. 41, No. 1, Pgs. 32-37, January 2011.
  22. "The Design of a Reliable Reputation System." Gayatri Swamynathan, Kevin Almeroth and Ben Y. Zhao. *Electronic Commerce Research Journal, Special Issue on Trust and Privacy Aspects of Electronic Commerce*, Vol. 10, No. 3-4, Pages 239-270, 2010.
  23. "Peer-exchange schemes to handle mismatch in peer-to-peer systems." Tongqing Qiu, Edward Chan, Mao Ye, Guihai Chen, and Ben Y. Zhao. *The Journal of Supercomputing*, April 2009, Vol. 48, No. 1, Pgs. 15-42.
  24. "Securing Structured Overlays Against Identity Attacks." Krishna P. N. Puttaswamy, Haitao Zheng and Ben Y. Zhao. *IEEE Transactions on Parallel and Distributed Systems*. October 2009, Vol. 20, No. 10, Pgs. 1487-1498.
  25. "QUORUM-QUality Of service RoUting in wireless Mesh networks." Vinod Kone, Sudipto Das, Ben Y. Zhao and Haitao Zheng. *ACM Mobile Networks and Applications (MONET)*. December 2007, Vol. 12, No. 5-6, Pgs. 358-369.
  26. "Globally Decoupled Reputations for Large Distributed Networks." Gayatri Swamynathan, Ben Y. Zhao, Kevin C. Almeroth and Haitao Zheng. *Hindawi Advances in Multimedia, Special Issue on Towards Next-Generation Peer-to-Peer Services*. Vol. 2007, No. 1, 2007.
  27. "Exploring the Feasibility of Proactive Reputations." Gayatri Swamynathan, Ben Y. Zhao and Kevin C. Almeroth. *Wiley Concurrency and Computation: Practice and Experience, Special Issue on Recent Advances in Peer-to-Peer Systems and Security*. May 2007, Vol. 20, No. 2, Pgs. 155-166.
  28. "Determining Model Accuracy of Network Traces." Almudena Konrad, Ben Y. Zhao, and Anthony D. Joseph. *Elsevier Journal of Computer and System Sciences*. November 2006, Vol. 72, No. 7.
  29. "Collaboration and Fairness in Opportunistic Spectrum Access." Chunyi Peng, Haitao Zheng, and Ben Y. Zhao. *ACM Mobile Networks and Applications (MONET)*. May 2006, Vol. 11, Pgs. 555-576.
  30. "Tapestry: A Resilient Global-scale Overlay for Service Deployment." Ben Y. Zhao, Ling Huang, Jeremy Stribling, Sean C. Rhea, Anthony D. Joseph, and John Kubiawicz. *IEEE Journal on Selected Areas in Communications (JSAC)*. January 2004, Vol. 22, No. 1, Pgs. 41-53.
  31. "Distributed Object Location in a Dynamic Network." Kirsten Hildrum, John D. Kubiawicz, Satish Rao and Ben Y. Zhao. *Springer-Verlag Theory of Computing Systems*, March 2004, No. 37, Pgs. 405-440.
  32. "A Markov-Based Channel Model Algorithm for Wireless Networks." Almudena Konrad, Ben Y. Zhao, Anthony D. Joseph and Reiner Ludwig. *ACM Baltzer Wireless Networks*, May 2003, Vol. 9, No. 3, Pgs.

189-199.

33. “Maintenance-Free Global Storage in OceanStore.” Sean Rhea, Chris Wells, Patrick Eaton, Dennis Geels, Ben Zhao, Hakim Weatherspoon, and John Kubiatowicz. *IEEE Internet Computing*, Sept/Oct 2001, Vol. 5, No. 5, Pgs. 40-49.
34. “An Architecture for Secure Wide-Area Service Discovery.” Todd D. Hodes, Steven E. Czerwinski, Ben Y. Zhao, Anthony D. Joseph, Randy H. Katz. *ACM Baltzer Wireless Networks*, March 2002, Vol. 8, No. 2-3, Pgs. 213-230.
35. “The Ninja Architecture for Robust Internet-Scale Systems and Services.” Steven D. Gribble, Matt Welsh et, al. *IEEE Computer Networks Special Issue on Pervasive Computing*, March 2001, Vol. 35, No. 4. Best Paper Award.
36. “ICEBERG: An Internet-core Network Architecture for Integrated Communications.” Helen J. Wang, Bhaskaran Raman, et, al. *IEEE Communications: Special Issue on IP-based Mobile Telecommunication Networks*, August 2000.

### Books and Chapters

37. “Invisible Interactions: What Latent Social Interaction Can Tell Us about Social Relationships in Social Networking Sites.” Miriam Metzger, Christo Wilson, Rebekah Pure, and Ben Y. Zhao. To Appear in *Networked sociability and individualism. Technology for personal and professional relationships*, Editor Francesca Comunello. 2011.
38. *Future Directions in Distributed Computing*. Editors: Alex Shvartsman, Andre Schiper, Hakim Weatherspoon and Ben Y. Zhao. Springer-Verlag, LNCS 2584, 2003.

### Refereed Conference and Workshop Proceedings

\_\_\_\_\_ denotes equal contribution, co-first authors

39. “Towards Scalable and Robust Model Versioning.” Wenxin Ding, Arjun Nitin Bhagoji, Ben Y. Zhao, Haitao Zheng. Proceedings of *IEEE Conference on Secure and Trustworthy Machine Learning (SaTML)*, Toronto Canada, April 2024.
40. “Can Virtual Reality Protect Users from Keystroke Inference Attacks?” Zhuolin Yang, Zain Sarwar, Iris Hwang, Ronik Bhaskar, Ben Y. Zhao, Haitao Zheng. Proceedings of *USENIX Security Symposium (USENIX Security)*, Philadelphia, PA, August 2024.
41. “Data Isotopes for Data Provenance in DNNs.” Emily Wenger, Xiuyu Li, Ben Y. Zhao, and Vitaly Shmatikov. Proceedings of *Privacy Enhancing Technologies Symposium (PETS)*, Bristol UK, July 2024.
42. “Characterizing the Optimal 0–1 Loss for Multi-class Classification with a Test-time Attacker.” Sihui Dai, Wenxin Ding, Arjun Nitin Bhagoji, Daniel Cullina, Haitao Zheng, Ben Y. Zhao, Prateek Mittal. Proceedings of *37th Conference on Neural Information Processing Systems (NeurIPS)*, New Orleans, December 2023. **Spotlight Paper.**
43. “Glaze: Protecting artists from style mimicry by text-to-image models.” Shawn Shan, Jenna Cryan, Emily Wenger, Haitao Zheng, Rana Hanocka, Ben Y. Zhao. Proceedings of *USENIX Security Symposium (USENIX Security)*, Anaheim CA, August 2023. **Distinguished Paper Award. Winner: USENIX Internet Defense Prize (2023).**
44. “Towards a General Video-based Keystroke Inference Attack.” Zhuolin Yang,, Yuxin Chen, Zain Sarwar, Hadleigh Schwartz, Ben Y. Zhao, Haitao Zheng. Proceedings of *USENIX Security Symposium*

- (*USENIX Security*), Anaheim CA, August 2023.
45. “‘My face, my rules’: Enabling Personalized Protection against Unacceptable Face Editing.” Zhujun Xiao, Jenna Cryan, Yuanshun Yao, Yi Hong Gordon Cheo, Yuanchao Shu, Stefan Saroiu, Ben Y. Zhao, Haitao Zheng. Proceedings of *Privacy Enhancing Technologies Symposium (PETS)*, Lausanne, Switzerland, July 2023
  46. “SoK: Anti-Facial Recognition Technology.” Emily Wenger, Shawn Shan, Haitao Zheng, and Ben Y. Zhao. Proceedings of *44<sup>th</sup> IEEE Symposium on Security and Privacy (Oakland)*, San Francisco CA, May 2023.
  47. “Finding Naturally Occurring Physical Backdoors in Image Datasets.” Emily Wenger, Roma Bhattacharjee, Arjun Bhagoji, Josephine Passananti, Emilio Andere, Haitao Zheng, Ben Y. Zhao. Proceedings of *the 36<sup>th</sup> Conference on Neural Information Processing Systems (NeurIPS)*, New Orleans LA, December 2022.
  48. “Understanding Robust Learning through the Lens of Representation Similarities.” Christian Cianfarani, Arjun Nitin Bhagoji, Vikash Sehwal, Ben Y. Zhao, Prateek Mittal, and Haitao Zheng. Proceedings of *the 36<sup>th</sup> Conference on Neural Information Processing Systems (NeurIPS)*, New Orleans LA, December 2022.
  49. “Post-breach Recovery: Protection against White-box Adversarial Examples for Leaked DNN Models.” Shawn Shan, Wenxin Ding, Emily Wenger, Haitao Zheng, and Ben Y. Zhao. Proceedings of *29<sup>th</sup> ACM Conference on Computer and Communications Security (CCS)*, Los Angeles, CA, November 2022.
  50. “Poison Forensics: Traceback of Targeted Data Poisoning Attacks in Neural Networks.” Shawn Shan, Arjun Nitin Bhagoji, Haitao Zheng, and Ben Y. Zhao. Proceedings of *USENIX Security Symposium (USENIX Security)*, Boston, MA, August 2022.
  51. “Blacklight: Scalable Defense for Neural Networks against Query-Based Black-Box Attacks.” Huiying Li, Shawn Shan, Emily Wenger, Jiayun Zhang, Haitao Zheng, and Ben Y. Zhao. Proceedings of *USENIX Security Symposium (USENIX Security)*, Boston, MA, August 2022.
  52. “‘Hello, It’s Me’: Deep Learning-based Speech Synthesis Attacks in the Real World.” Emily Wenger, Max Bronckers, Christian Cianfarani, Jenna Cryan, Angela Sha, Haitao Zheng, and Ben Y. Zhao. Proceedings of *ACM Conference on Computer and Communications Security (CCS)*, Seoul, South Korea, November 2021.
  53. “Patch-based Defenses against Web Fingerprinting Attacks.” Shawn Shan, Arjun Nitin Bhagoji, Haitao Zheng, and Ben Y. Zhao. Proceedings of *14<sup>th</sup> ACM Workshop on Artificial Intelligence and Security (AISec)*, Seoul, South Korea, November 2021.
  54. “Towards Performance Clarity of Edge Video Analytics.” Zhujun Xiao, Zhengxu Xia, Heather Zheng, Ben Y. Zhao, Junchen Jiang. Proceedings of *ACM/IEEE Symposium on Edge Computing (SEC)*, San Jose, December 2021.
  55. “Backdoor Attacks Against Deep Learning Systems in the Physical World.” Emily Wenger, Josephine Passanati, Arjun Nitin Bhagoji, Yuanshun Yao, Haitao Zheng, Ben Y. Zhao. Proceedings of *IEEE Computer Vision and Pattern Recognition (CVPR)*, June 2021.
  56. “User Authentication via Electrical Muscle Stimulation.” Yuxin Chen, Zhuolin Yang, Ruben Abbou, Pedro Lopes, Ben Y. Zhao, Haitao Zheng. Proceedings of *ACM CHI Conference on Human Factors in Computing Systems (CHI)*, Yokohama Japan, April 2021.
  57. “Gotta Catch’em All: Using Honeypots to Catch Adversarial Attacks on Neural Networks.” Shawn Shan, Emily Wenger, Bolun Wang, Bo Li, Haitao Zheng, Ben Y. Zhao. Proceedings of *ACM*

- Conference on Computer and Communications Security (CCS)*, Orlando, FL, November 2020.
58. “Deep Graph Convolution Networks for Incident-driven Traffic Speed Prediction.” Qinge Xie, Tiancheng Guo, Yang Chen, Yu Xiao, Xin Wang, Ben Y. Zhao. Proceedings of the *29th ACM International Conference on Information and Knowledge Management (CIKM)*, Galway Ireland, October 2020.
  59. “Fawkes: Protecting Personal Privacy against Unauthorized Deep Learning Models.” Shawn Shan, Emily Willson, Jiayun Zhang, Huiying Li, Haitao Zheng, Ben Y. Zhao. Proceedings of *USENIX Security Symposium (USENIX Security)*, Boston, MA, August 2020.
  60. “Detecting Gender Stereotypes: Evaluation and Integration of Lexicon and Supervised Learning.” Jenna Cryan, Shiliang Tang, Xinyi Zhang, Miriam Metzger, Haitao Zheng, Ben Y. Zhao. Proceedings of *ACM CHI Conference on Human Factors in Computing Systems*, Honolulu, HI, April 2020.  
**Best Paper Honorable Mention Award.**
  61. “Wearable Microphone Jamming.” Yuxin Chen, Huiying Li, Shan-Yuan Teng, Steven Nagels, Zhijing Li, Pedro Lopes, Ben Y. Zhao, Haitao Zheng. Proceedings of *ACM CHI Conference on Human Factors in Computing Systems*, Honolulu, HI, April 2020.  
**Best Paper Honorable Mention Award.**
  62. “Et Tu Alexa? When Commodity WiFi Devices Turn into Adversarial Motion Sensors.” Yanzi Zhu, Zhujun Xiao, Yuxin Chen, Zhijing Li, Max Liu, Ben Y. Zhao, and Haitao Zheng. Proceedings of *Network and Distributed System Security Symposium (NDSS)*, San Diego, CA, February 2020.
  63. “Latent Backdoor Attacks on Deep Neural Networks.” Yuanshun Yao, Huiying Li, Haitao Zheng and Ben Y. Zhao. Proceedings of *ACM Conference on Computer and Communications Security (CCS)*, London, UK, November 2019.
  64. “Safely and Automatically Updating In-Network ACL Configurations with Intent Language.” 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. Proceedings of *ACM SIGCOMM*, Beijing China, August 2019.
  65. “Scaling Deep Learning Models for Spectrum Anomaly Detection.” Zhijing Li, Zhujun Xiao, Bolun Wang, Ben. Y. Zhao and Haitao Zheng. Proceedings of *20th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, Catania Italy, July 2019.
  66. “Neural Cleanse: Identifying and Mitigating Backdoor Attacks in Neural Networks.” Bolun Wang, Yuanshun Yao, Shawn Shan, Huiying Li, Bimal Viswanath, Haitao Zheng and Ben Y. Zhao. Proceedings of *40th IEEE Symposium on Security and Privacy (Oakland)*, San Francisco CA, May 2019.
  67. “Towards Understanding the Adoption and Social Experience of Digital Wallet Systems.” Shiliang Tang, Ziming Wu, Xinyi Zhang, Gang Wang, Xiaojuan Ma, Haitao Zheng and Ben Y. Zhao. Proceedings of *Hawaii International Conference on System Sciences (HICSS)*, Maui HI, January 2019.
  68. “Predictive Analysis in Network Function Virtualization.” Zhijing Li, Zihui Ge, Ajay Mahimkar, Jia Wang, Ben Y. Zhao, Haitao Zheng, Joanne Emmons, and Laura Ogden. Proceedings of the *18th ACM SIGCOMM Internet Measurement Conference (IMC)*, Boston MA, November 2018.
  69. “Understanding Motivations behind Inaccurate Check-ins.” Fengli Xu, Guozhen Zhang, Jiaxin Huang, Yong Li, Diyi Yang, Ben Y. Zhao, and Fanchao Meng. Proceedings of *21st ACM conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, Jersey City, NJ, November 2018.
  70. “Gender Bias in the Job Market: a Longitudinal Analysis.” Shiliang Tang, Xinyi Zhang, Jenna Cryan, Miriam Metzger, Haitao Zheng and Ben Y. Zhao. Proceedings of *21st ACM conference on Computer-*



*Supported Cooperative Work and Social Computing (CSCW)*, Jersey City, NJ, November 2018.

71. "With Great Training Comes Great Vulnerability: Practical Attacks against Transfer Learning." Bolun Wang, Yuanshun Yao, Bimal Viswanath, Haitao Zheng and Ben Y. Zhao. Proceedings of *27th USENIX Security Symposium (USENIX Security)*, Baltimore, MD, August 2018.
72. "Penny Auctions are Predictable: Predicting and profiling user behavior on DealDash." Xinyi Zhang, Shawn Shan, Shiliang Tang, Haitao Zheng and Ben Y. Zhao. Proceedings of *ACM Conference on Hypertext and Social Media (HT)*, Baltimore, MD, July 2018.
73. "DeepCredit: Clickstream-based Model for Loan Risk Prediction in P2P Lending." Zhi Yang, Yusi Zhang, Binghui Guo, Ben Zhao and Yafei Dai. Proceedings of *International AAAI Conference on Web and Social Media (ICWSM)*, Stanford, CA, June 2018.
74. "Adversarial Localization against Wireless Cameras." Zhijing Li, Zhujun Xiao, Yanzi Zhu, Irene Pattarachanyakul, Ben Y. Zhao, Haitao Zheng. Proceedings of *19th International Workshop on Mobile Computing Systems and Applications (HotMobile)*, Tempe AZ, February 2018.
75. "On Migratory Behavior in Video Consumption." Huan Yan, Tzu-Heng Lin, Gang Wang, Yong Li, Haitao Zheng, Depeng Jin and Ben Y. Zhao. Proceedings of *ACM International Conference on Information and Knowledge Management (CIKM)*, Singapore, November 2017.
76. "Complexity vs. Performance: Empirical Analysis of Machine Learning as a Service." Yuanshun Yao, Zhujun Xiao, Bolun Wang, Bimal Viswanath, Haitao Zheng and Ben Y. Zhao. Proceedings of the *17th ACM SIGCOMM Internet Measurement Conference (IMC)*, London, UK, November 2017.
77. "Automated Crowdturfing Attacks and Defenses in Online Review Systems." Yuanshun Yao, Bimal Viswanath, Jenna Cryan, Haitao Zheng and Ben Y. Zhao. Proceedings of *ACM Conference on Computer and Communications Security (CCS)*, Dallas, TX, October 2017.
78. "SecurePost: Verified Group-Anonymity on Social Media." Michael Nekrasov, Daniel Iland, Miriam Metzger, Ben Zhao and Elizabeth Belding. Proceedings of the *7th USENIX Workshop on Free and Open Communications on the Internet (FOCI)*, Vancouver, Canada, August 2017.
79. "Object Recognition and Navigation using a Single Networking Device." Yanzi Zhu, Yuanshun Yao, Ben Y. Zhao and Haitao Zheng. Proceedings of the *15th ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, Niagara Falls, NY, June 2017.
80. "Echo Chambers in Investment Discussion Boards." Shiliang Tang, Qingyun Liu, Megan McQueen, Scott Counts, Apurv Jain, Haitao Zheng, and Ben Y. Zhao. Proceedings of the *International AAAI Conference on Web and Social Media (ICWSM)*, Montreal, Canada, May 2017.
81. "Cold Hard E-Cash: Friends and Vendors in the Venmo Digital Payments System." Xinyi Zhang, Shiliang Tang, Yun Zhao, Gang Wang, Haitao Zheng, and Ben Y. Zhao. Proceedings of the *International AAAI Conference on Web and Social Media (ICWSM)*, Montreal, Canada, May 2017.
82. "A First Look at User Switching Behaviors over Multiple Video Content Providers." Huan Yan, Tzu-Heng Lin, Gang Wang, Yong Li, Haitao Zheng, Depeng Jin, Ben Y. Zhao. Proceedings of the *International AAAI Conference on Web and Social Media (ICWSM)*, Montreal, Canada, May 2017.
83. "Passive Social Interaction in Social Networking Sites." Miriam Metzger, Christo Wilson, Ben Y. Zhao. Proceedings of the *67th Annual International Communication Association Conference (ICA)*, San Diego, CA, May 2017.
84. "Identifying Value in Crowdsourced Wireless Signal Measurements." Zhijing Li, Ana Nika, Xinyi Zhang, Yanzi Zhu, Yuanshun Yao, Ben Y. Zhao and Haitao Zheng. Proceedings of the *26th World Wide Web Conference (WWW)*, Perth, Australia, April 2017.

85. "Trimming the Smartphone Network Stack." Yanzi Zhu, Yibo Zhu, Ana Nika, Ben Y. Zhao, Haitao Zheng. Proceedings of the *15th ACM Workshop on Hot Topics in Networks (HotNets)*, Atlanta, GA, November 2016.
86. "Anatomy of a Personalized Livestreaming System." Bolun Wang, Xinyi Zhang, Gang Wang, Haitao Zheng, Ben Y. Zhao. Proceedings of the *16th ACM SIGCOMM Internet Measurement Conference (IMC)*, Santa Monica, CA, November 2016
87. "Network Growth and Link Prediction Through an Empirical Lens." Qingyun Liu, Shiliang Tang, Xinyi Zhang, Xiaohan Zhao, Ben Y. Zhao and Haitao Zheng. Proceedings of the *16th ACM SIGCOMM Internet Measurement Conference (IMC)*, Santa Monica, CA, November 2016.
88. "Empirical Validation of Commodity Spectrum Monitoring." Ana Nika, Zhijing Li, Yanzi Zhu, Yibo Zhu, Ben Y. Zhao, Xia Zhou, and Haitao Zheng. Proceedings of *ACM Conference on Embedded Networked Sensor Systems (SenSys)*, Stanford, CA, November 2016.
89. "On the Performance of Cloud Storage Applications with Global Measurement." Guangyuan Wu, Fangming Liu, Haowen Tang, Keke Huang, Qixia Zhang, Zhenhua Li, Ben Y. Zhao, Hai Jin. Proceedings of *ACM/IEEE International Symposium on Quality of Service (IWQoS)*, Beijing, China, June 2016.
90. "Defending against Sybil Devices in Crowdsourced Mapping Services." Gang Wang, Bolun Wang, Tianyi Wang, Ana Nika, Haitao Zheng, Ben Y. Zhao. Proceedings of *14th ACM International Conference on Mobile Systems, Applications, and Services (MobiSys)*, Singapore, June 2016.
91. "'Will Check-in for Badges': Understanding Bias and Misbehavior on Location-based Social Networks." Gang Wang, Sarita Y. Schoenebeck, Haitao Zheng, Ben Y. Zhao. Proceedings of *10th International AAAI Conference on Web and Social Media (ICWSM)*, Cologne, Germany, May 2016.
92. "Unsupervised Clickstream Clustering For User Behavior Analysis." Gang Wang, Xinyi Zhang, Shiliang Tang, Haitao Zheng, Ben Y. Zhao. Proceedings of *SIGCHI Conference on Human Factors in Computing Systems (CHI)*, San Jose CA, May 2016.
93. "Exploring Cross-Application Cellular Traffic Optimization with Baidu TrafficGuard." Zhenhua Li, Weiwei Wang, Tianyin Xu, Xin Zhong, Xiang-Yang Li, Yunhao Liu, Christo Wilson, Ben Y. Zhao. Proceedings of *13th USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, Santa Clara CA, March 2016.
94. "Towards Graph Watermarks." Xiaohan Zhao, Qingyun Liu, Haitao Zheng and Ben Y. Zhao. Proc. of *3rd ACM Conference on Online Social Networks (COSN)*, Stanford, CA, November 2015.
95. "Process-driven Analysis of Dynamics in Online Social Interactions." Zhi Yang, Jilong Xue, Christo Wilson, Ben Y. Zhao, and Yafei Dai. Proc. of *3rd ACM Conference on Online Social Networks (COSN)*, Stanford, CA, November 2015.
96. "Practical 60GHz Mobile Radar." Yanzi Zhu, Yibo Zhu, Ben Y. Zhao and Haitao Zheng. Proc. of *21st Annual International Conference on Mobile Computing and Networking (MOBICOM)*, Paris, France, September 2015.
97. "Packet-Level Telemetry in Large Datacenter Networks." Yibo Zhu, Nanxi Kang, Jiaxin Cao, Albert Greenberg, Guohan Lu, Ratul Mahajan, Dave Maltz, Lihua Yuan, Ming Zhang, Haitao Zheng, Ben Y. Zhao. Proc. of *ACM SIGCOMM*, London, UK, August 2015.
98. "Energy and Performance of Smartphone Radio Bundling in Outdoor Environments." Ana Nika, Yibo Zhu, Ning Ding, Abhilash Jindal, Y. Charlie Hu, Xia Zhou, Ben Y. Zhao and Haitao Zheng. Proc. of the *24th International World Wide Web Conference (WWW)*, Florence, Italy, May 2015.

99. "60GHz Mobile Imaging Radar." Yibo Zhu, Yanzi Zhu, Zengbin Zhang, Ben Y. Zhao, Haitao Zheng. Proceedings of *16th Workshop on Mobile Computing Systems and Applications (HotMobile)*, Santa Fe, NM, February 2015.
100. "Crowds on Wall Street: Extracting Value from Collaborative Investing Platforms." Gang Wang, Tianyi Wang, Bolun Wang, Divya Sambasivan, Zengbin Zhang, Haitao Zheng, Ben Y. Zhao. Proceedings of *18th ACM conference on Computer-Supported Cooperative Work and Social Computing (CSCW)*, Vancouver BC, Canada, March 2015.
101. "Whispers in the Dark: Analysis of an Anonymous Social Network." Gang Wang, Bolun Wang, Tianyi Wang, Ana Nika, Haitao Zheng, Ben Y. Zhao. Proceedings of the *14th ACM SIGCOMM Internet Measurement Conference (IMC)*, Vancouver BC, Canada, November 2014.
102. "Towards Commoditized Real-time Spectrum Monitoring." Ana Nika, Zengbin Zhang, Xia Zhou, Ben Y. Zhao, Haitao Zheng. Proceedings of *First ACM Workshop on Hot Topics in Wireless (HotWireless)*, Maui, HI, September 2014.
103. "Cutting the Cord: a Robust Wireless Facilities Network for Data Centers." Yibo Zhu, Xia Zhou, Zengbin Zhang, Lin Zhou, Amin Vahdat, Ben Y. Zhao, Haitao Zheng. Proceedings of *20th Annual International Conference on Mobile Computing and Networking (MOBICOM)*, Maui, HI, Sept. 2014.
104. "Demystifying 60GHz Outdoor Picocells." Yibo Zhu, Zengbin Zhang, Zhinous Marzi, Chris Nelson, Upamanyu Madhow, Ben Y. Zhao, Haitao Zheng. Proceedings of *20th Annual International Conference on Mobile Computing and Networking (MOBICOM)*, Maui, HI, September 2014.
105. "Understanding Data Hotspots in Cellular Networks." Ana Nika, Asad Ismail, Ben Y. Zhao, Sabrina Gaito, Haitao Zheng. Proceedings of the *10th International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine)*, Rhodes, Greece, August 2014.
106. "Man vs. Machine: Practical Adversarial Detection of Malicious Crowdsourcing Workers." Gang Wang, Tianyi Wang, Haitao Zheng, Ben Y. Zhao. Proceedings of the *23rd USENIX Security Symposium (Usenix Security)*, San Diego, CA, August 2014.
107. "Link and Triadic Closure Delay: Temporal Metrics for Social Network Dynamics." Matteo Zignani, Sabrina Gaito, Gian Paolo Rossi, Xiaohan Zhao, Haitao Zheng, Ben Y. Zhao. Proceedings of *8th AAAI International Conference on Weblogs and Social Media (ICWSM)*, Ann Arbor, MI, June 2014.
108. "On the Embeddability of Random Walk Distances." Xiaohan Zhao, Adelbert Chang, Atish Das Sarma, Haitao Zheng and Ben Y. Zhao. Proceedings of *the VLDB Endowment, Vol. 6, No. 14*. Presentation at the *40th International Conference on Very Large Data Bases (VLDB/PVLDB)*, Hangzhou, China, September, 2014.
109. "Efficient Batched Synchronization in Dropbox-like Cloud Storage Services." Zhenhua Li, Christo Wilson, Zhefu Jiang, Yao Liu, Ben Zhao, Cheng Jin, Zhi-Li Zhang and Yafei Dai. Proceedings of ACM International Middleware Conference (Middleware), Beijing, China, December, 2013.
110. "On the Validity of Geosocial Mobility Traces." Zengbin Zhang, Lin Zhou, Xiaohan Zhao, Gang Wang, Yu Su, Miriam Metzger, Haitao Zheng and Ben Y. Zhao. Proceedings of ACM Workshop on Hot Topics in Networks (HotNets-XII), College Park, MD, November, 2013.
111. "Follow the Green: Growth and Dynamics in Twitter Follower Markets." Gianluca Stringhini, Gang Wang, Manuel Egele, Christopher Kruegel, Giovanni Vigna, Haitao Zheng, Ben Y. Zhao. Proceedings of the *13th ACM SIGCOMM Internet Measurement Conference (IMC)*, Barcelona, Spain, October 2013.
112. "You are How You Click: Clickstream Analysis for Sybil Detection." Gang Wang, Tristan Konolige, Christo Wilson, Xiao Wang, Haitao Zheng and Ben Y. Zhao. Proceedings of the *22nd USENIX Security Symposium (USENIX Security)*, Washington, DC, August 2013.

113. "Practical Conflict Graphs for Dynamic Spectrum Distribution." Xia Zhou, Zengbin Zhang, Gang Wang, Xiaoxiao Yu, Ben Y. Zhao and Haitao Zheng. Proceedings of *ACM International Conference on Measurement and Modeling of Computer Systems (SIGMETRICS)*, Pittsburgh, PA, June 2013.  
**Best Practical Paper Award.**
114. "Wisdom in the Social Crowd: an Analysis of Quora." Gang Wang, Konark Gill, Manish Mohanlal, Haitao Zheng and Ben Y. Zhao. Proceedings of *The 22nd International World Wide Web Conference (WWW)*, Rio de Janeiro, Brazil, May 2013.
115. "Social Turing Tests: Crowdsourcing Sybil Detection." Gang Wang, Manish Mohanlal, Christo Wilson, Xiao Wang, Miriam Metzger, Haitao Zheng and Ben Y. Zhao. Proceedings of the 20th *Network & Distributed System Security Symposium (NDSS)*, San Diego, CA, February 2013.
116. "Multi-scale Dynamics in a Massive Online Social Network." Xiaohan Zhao, Alessandra Sala, Christo Wilson, Xiao Wang, Sabrina Gaito, Haitao Zheng and Ben Y. Zhao. Proceedings of the 12th *ACM SIGCOMM Internet Measurement Conference (IMC)*, Boston, MA, November 2012.
117. "On the Bursty Evolution of Online Social Networks." Sabrina Gaito, Matteo Zignani, Gian Paolo Rossi, Alessandra Sala, Xiaohan Zhao, Xiao Wang, Haitao Zheng and Ben Y. Zhao. Proceedings of *ACM KDD HotSocial Workshop*, Beijing, China, August 2012.
118. "Mirror Mirror on the Ceiling: Flexible Wireless Links for Data Centers." Xia Zhao, Zengbin Zhang, Yibo Zhu, Yubo Li, Saipriya Kumar, Amin Vahdat, Ben Y. Zhao and Haitao Zheng. Proceedings of *ACM SIGCOMM*, Helsinki, Finland, August 2012.
119. "Shortest Paths in Less Than a Millisecond." Rachit Agarwal, Matthew Caesar, P. Brighten Godfrey and Ben Y. Zhao. Proceedings of *SIGCOMM Workshop on Online Social Networks (WOSN)*, Helsinki, Finland, August 2012.
120. "Enforcing Dynamic Spectrum Access with Spectrum Permits." Lei Yang, Zengbin Zhang, Ben Y. Zhao, Christopher Kruegel and Haitao Zheng. Proceedings of the *13th International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, Hilton Head Island, SC, June 2012.
121. "Invisible Interactions: What Latent Social Interaction Can Tell Us about Social Relationships in Social Networking Sites." Miriam Metzger, Christo Wilson, Rebekah Pure, Ben Y. Zhao. Proceedings of the *International Communication Association Conference (ICA)*, Phoenix, AZ, May 2012.
122. "Serf and Turf: Crowdturfing for Fun and Profit." Gang Wang, Christo Wilson, Xiaohan Zhao, Yibo Zhu, Manish Mohanlal, Haitao Zheng and Ben Y. Zhao. Proceedings of *The 21st International World Wide Web Conference (WWW)*, Lyon, France, April 2012.
123. "3D Beamforming for Wireless Data Centers." Weile Zhang, Xia Zhou, Lei Yang, Zengbin Zhang, Ben Y. Zhao and Haitao Zheng. Proceedings of *10th ACM Workshop on Hot Topics in Networks (HotNets-X)*, Cambridge, MA, November 2011.
124. "Efficient Shortest Paths on Massive Social Graphs." Xiaohan Zhao, Alessandra Sala, Haitao Zheng and Ben Y. Zhao. (Invited Paper) Proceedings of *7th International Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom)*, Orlando, FL, October 2011.
125. "Scaling Microblogging Services with Divergent Traffic Demands." Tianyin Xu, Yang Chen, Lei Jiao, Ben Zhao, Pan Hui and Xiaoming Fu. Proceedings of the 12th *ACM/IFIP/USENIX International Middleware Conference (Middleware)*, Lisboa, Portugal, December 2011.
126. "Sharing Graphs using Differentially Private Graph Models." Alessandra Sala, Xiaohan Zhao, Christo Wilson, Haitao Zheng and Ben Y. Zhao. Proceedings of the *11th ACM SIGCOMM International*

- Measurement Conference (IMC)*, Berlin, Germany, November 2011.
127. "Uncovering Social Network Sybils in the Wild." Zhi Yang, Christo Wilson, Xiao Wang, Tingting Gao, Ben Y. Zhao and Yafei Dai. *Proceedings of the 11th ACM SIGCOMM International Measurement Conference (IMC)*, Berlin, Germany, November 2011.
  128. "Silverline: Toward Data Confidentiality in Storage-Intensive Cloud Applications." Krishna P. N. Puttaswamy, Chris Kruegel and Ben Y. Zhao. *Proceedings of The 2nd ACM Symposium on Cloud Computing (SoCC)*, Cascais, Portugal, October 2011.
  129. "I Am the Antenna: Accurate Outdoor AP Location using Smartphones." Zengbin Zhang, Xia Zhou, Weile Zhang, Yuanyang Zhang, Gang Wang, Ben Y. Zhao, and Haitao Zheng. *Proceedings of The 16th Annual International Conference on Mobile Computing and Networking (MOBICOM)*, Las Vegas, NV, September 2011.
  130. "Privacy, Availability and Economics in the Polaris Mobile Social Network." Christo Wilson, Troy Steinbauer, Gang Wang, Alessandra Sala, Haitao Zheng and Ben Y. Zhao. *Proceedings of 12th ACM Workshop on Mobile Computing Systems and Applications (HotMobile)*, Phoenix, AZ, March 2011.
  131. "Exploiting Locality of Interest in Online Social Networks." Mike P. Wittie, Veljko Pejovic, Lara Deek, Kevin C. Almeroth and Ben Y. Zhao. *Proceedings of the 6th International Conference on emerging Networking EXperiments and Technologies (CoNEXT)*, Philadelphia, PA, December, 2010.
  132. "Understanding Latent Interactions in Online Social Networks." Jing Jiang, Christo Wilson, Xiao Wang, Peng Huang, Wenpeng Sha, Yafei Dai and Ben Y. Zhao. *Proceedings of the 10th ACM SIGCOMM International Measurement Conference (IMC)*, Melbourne, Australia, November, 2010.
  133. "Detecting and Characterizing Social Spam Campaigns." Hongyu Gao, Jun Hu, Christo Wilson, Zhichun Li, Yan Chen and Ben Y. Zhao. *Proceedings of the 10th ACM SIGCOMM International Measurement Conference (IMC)*, Melbourne, Australia, November, 2010.
  134. "On the Feasibility of Effective Opportunistic Spectrum Access." Vinod Kone, Lei Yang, Xue Yang, Ben Y. Zhao and Haitao Zheng. *Proceedings of the 10th ACM SIGCOMM International Measurement Conference (IMC)*, Melbourne, Australia, November, 2010.
  135. "The Spaces Between Us: Setting and Maintaining Boundaries in Wireless Spectrum Access." Lei Yang, Ben Y. Zhao, and Haitao Zheng. *Proceedings of the 16th Annual International Conference on Mobile Computing and Networking (MOBICOM)*, Chicago IL, September, 2010.
  136. "Orion: Shortest Path Estimation for Large Social Graphs." Xiaohan Zhao, Alessandra Sala, Christo Wilson, Haitao Zheng and Ben Y. Zhao. *Proceedings of the 3rd Workshop on Online Social Networks (WOSN)*, Boston MA, June 2010.
  137. "Don't Tread on Me: Moderating Access to OSN Data with SpikeStrip." Christo Wilson, Alessandra Sala, Joseph Bonneau, Robert Zablit and Ben Y. Zhao. *Proceedings of the 3rd Workshop on Online Social Networks (WOSN)*, Boston MA, June 2010.
  138. "Coexistence-Aware Scheduling for Wireless System-on-a-Chip Devices." Lei Yang, Vinod Kone, Xue Yang, York Liu, Ben Y. Zhao and Haitao Zheng. *Proceedings of the 7th IEEE Conference on Sensor, Mesh, and Ad Hoc Communications and Networks (SECON)*, Boston MA, June 2010.
  139. "AmazingStore: Available, Low-cost Online Storage Service Using Cloudlets." Zhi Yang, Ben Y. Zhao, Yuanjian Xing, Song Ding, Feng Xiao and Yafei Dai. *Proceedings of the 9th International Workshop on Peer-to-Peer Systems (IPTPS)*, San Jose, CA, April 2010.
  140. "Measurement-calibrated Graph Models for Social Network Experiments." Alessandra Sala, Lili Cao, Christo Wilson, Robert Zablit, Haitao Zheng and Ben Y. Zhao. *Proceedings of the 19th World Wide*

- Web Conference (WWW)*, Raleigh, NC, April 2010.
141. "Supporting Demanding Wireless Applications with Frequency-agile Radios." Lei Yang, Wei Hou, Lili Cao, Ben Y. Zhao and Haitao Zheng. Proceedings of *7th USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, San Jose, CA, April 2010.
  142. "On Infostation Density of Vehicular Networks." Vinod Kone, Haitao Zheng, Antony Rowstron and Ben Y. Zhao. Proceedings of *5th Annual International Wireless Internet Conference (WICON)*, Singapore, March 2010.
  143. "Preserving Privacy in Location-based Mobile Social Applications." Krishna P. N. Puttaswamy and Ben Y. Zhao. Proceedings of *11th Workshop on Mobile Computing Systems and Applications (ACM HotMobile)*, Annapolis, MD, February 2010.
  144. "StarClique: Guaranteeing User Privacy in Social Networks Against Intersection Attacks." Krishna P. N. Puttaswamy, Alessandra Sala, and Ben Y. Zhao. Proceedings of *ACM Conference on emerging Networking Experiments and Technologies (CoNEXT)*, Rome, Italy, December, 2009.
  145. "User Interactions in Social Networks and their Implications." Christo Wilson, Bryce Boe, Alessandra Sala, Krishna P. N. Puttaswamy and Ben Y. Zhao. Proceedings of *the 4th ACM European Conference on Computer Systems (EuroSys)*, Nuremberg, Germany, April, 2009.
  146. "Rome: Performance and Anonymity using Route Meshes." Krishna P. N. Puttaswamy, Alessandra Sala, Omer Egecioglu, and Ben Y. Zhao. Proceedings of *the 28th IEEE International Conference on Computer Communications (INFOCOM), Mini-symposium*, Rio de Janeiro, Brazil, April 2009.
  147. "Improving Anonymity using Social Links." Krishna P. N. Puttaswamy, Alessandra Sala, and Ben Y. Zhao. Proceedings of *Fourth IEEE International Workshop on Secure Network Protocols (NPSec 2008)*, Orlando, FL, October 2008.
  148. "Defending Anonymity against Predecessor Attacks in Bluemoon." Krishna P. N. Puttaswamy, Alessandra Sala, Christo Wilson, and Ben Y. Zhao. Proceedings of *IEEE International Conference on Network Protocols (ICNP 2008)*, Orlando, FL, October 2008.
  149. "Towards Reliable Reputations for Dynamic Networked Systems." Gayatri Swamynathan, Ben Y. Zhao, Kevin C. Almeroth, and S. Rao Jammalamadaka. Proceedings of *IEEE Symposium on Reliable Distributed Systems (SRDS 2008)*, Naples, Italy, October 2008.
  150. "Probabilistic Failure Detection for Efficient Distributed Storage Maintenance." Jing Tian, Zhi Yang, Wei Chen, Ben Y. Zhao and Yafei Dai. Proceedings of *IEEE Symposium on Reliable Distributed Systems (SRDS 2008)*, Naples, Italy, October 2008.
  151. "Do Social Networks Improve e-Commerce: a Study on Social Marketplaces." Gayatri Swamynathan, Christo Wilson, Bryce Boe, Kevin C. Almeroth and Ben Y. Zhao. Proceedings of *First SIGCOMM Workshop on Online Social Networks (WOSN 2008)*, Seattle, WA, August 2008.
  152. "High Throughput Spectrum-aware Routing for Cognitive Radio Based Ad-hoc Networks." Ashwin Sampath, Lei Yang, Lili Cao, Haitao Zheng, and Ben Y. Zhao. Proceedings of *the 3rd International Conference on Cognitive Radio Oriented Wireless Networks and Communications (CROWNCOM 2008)*, Singapore, May 2008.
  153. "Searching for Rare Objects using Index Replication." Krishna P. N. Puttaswamy, Alessandra Sala and Ben Y. Zhao. Proceedings of *the 27th IEEE International Conference on Computer Communications (INFOCOM)*, Phoenix, AZ, April 2008.
  154. "Towards Location-aware Topology in both Unstructured and Structured P2P Systems." Tongqing Qiu, Edward Chan, Mao Ye, Guihai Chen and Ben Y. Zhao. Proceedings of *International Conference on*

- Parallel Processing (ICPP)*, XiAn, China, September 2007.
155. "QUORUM - QUality Of service RoUting in wireless Mesh networks." Vinod Kone, Sudipto Das, Ben Y. Zhao and Haitao Zheng. Proceedings of *International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine)*, Vancouver, BC, Canada, August 2007.
  156. "Multi-channel Jamming Attacks using Cognitive Radios." Ashwin Sampath, Hui Dai, Haitao Zheng and Ben Y. Zhao. Proceedings of the *16<sup>th</sup> International Conference on Computer Communications and Networks (ICCCN)*, Honolulu, HI, August 2007.
  157. "Fairness Attacks in the Explicit Control Protocol." Christo Wilson, Chris Coakley and Ben Y. Zhao. Proceedings of *Fifteenth IEEE International Workshop on Quality of Service (IWQoS)*, Chicago, IL, June 2007.
  158. "A Case for Unstructured Distributed Hash Tables." Krishna P. N. Puttaswamy and Ben Y. Zhao. Proceedings of *IEEE Global Internet Symposium*, Anchorage, AK, May 2007.
  159. "Deploying Video-on-Demand Services on Cable Networks." Matthew Allen, Ben Y. Zhao and Rich Wolski. Proceedings of *IEEE International Conference on Distributed Computing Systems (ICDCS)*, Toronto, Canada, June 2007.
  160. "An Empirical Study of Collusion Behavior in the Maze P2P File-Sharing System." Qiao Lian, Zheng Zhang, Mao Yang, Ben Y. Zhao, Yafei Dai and Xiaoming Li. Proceedings of *IEEE International Conference on Distributed Computing Systems (ICDCS)*, Toronto, Canada, June 2007.
  161. "HPTP: Relieving the Tension between ISPs and P2P." Guobin Shen, Ye Wang, Yongqiang Xiong, Ben Y. Zhao and Zhi-Li Zhang. *Proceedings of the 6<sup>th</sup> International Workshop on Peer-to-Peer Systems (IPTPS)*, Bellevue, WA, February 2007.
  162. "Scalable Access Control for Web Services." Gayatri Swamynathan, Tyler Close, Sujata Banerjee, Rick McGeer, Ben Y. Zhao and Kevin C. Almeroth. *Proceedings of C5*, Kyoto, Japan, January 2007.
  163. "Integrated Data Location in Multi-hop Wireless Networks." Irfan Sheriff, Prashanth Acharya, Ashwin Sampath, Ben Y. Zhao and Elizabeth Belding. *Proceedings of IEEE/Create-Net COMSWARE*, Bangalore, India, January 2007.
  164. "Increasing TCP Throughput with an Enhanced Control Plane." A. Bavier et al. *Proceedings of MILCOM*, Washington, DC, October 2006.
  165. "Energy Consumption and Conservation in Mobile Peer-to-Peer Systems." Selim Gurun, Priya Nagpurkar and Ben Y. Zhao. *Proceedings of ACM MobiShare*, Los Angeles, CA, September 2006.
  166. "Location Independent Compact Routing for Wireless Networks." Robert Gilbert, Kerby Johnson, Shaomei Wu, Ben Y. Zhao and Haitao Zheng. *Proceedings of ACM MobiShare*, Los Angeles, CA, September 2006.
  167. "Understanding User Behavior in Large Scale Video-on-Demand Systems." Hongliang Yu, Dongdong Zheng, Ben Y. Zhao and Weimin Zheng. *Proceedings of the 1st European Conference on Computer Systems (EuroSys)*, Leuven, Belgium, April 2006.
  168. "Parallelizing Skyline Queries for Scalable Distribution." Ping Wu, Caijie Zhang, Ying Feng, Ben Y. Zhao, Divyakant Agrawal and Amr El Abbadi. *Proceedings of the 10th International Conference on Extending Database Technology (EDBT)*, Munich, Germany, March 2006.
  169. "Exploring the Feasibility of Proactive Reputations." Gayatri Swamynathan, Ben Y. Zhao and Kevin C. Almeroth. *Proceedings of the 5th International Workshop on Peer-to-Peer Systems (IPTPS)*, Santa Barbara, CA, February 2006.

170. "Identity Theft Protection in Structured Overlays." Lakshmi Ganesh and Ben Y. Zhao. *Proceedings of the 1st Workshop on Secure Network Protocols (NPSec)*, Boston, MA, November 2005.
171. "Decoupling Service and Feedback Trust in a Peer-to-Peer Reputation System." Gayatri Swamynathan, Ben Y. Zhao and Kevin Almeroth. *Proceedings of the 1st International Workshop on Applications and Economics of Peer-to-Peer Systems (AEPP)*, Nanjing, China, November 2005.
172. "Z-Ring: Fast Prefix Routing via a Low Maintenance Membership Protocol." Wei Chen, Qiao Lian, Zheng Zhang, Shaomei Wu, and Ben Y. Zhao. *Proceedings of the 13th IEEE International Conference on Network Protocols (ICNP)*, Boston, MA, November 2005.
173. "Choosing an Accurate Network Model using Domain Analysis." Almudena Konrad, Ben Y. Zhao and Anthony D. Joseph. *Proceedings of the 1st International Workshop on Performance Modeling in Wired, Wireless, Mobile Networking and Computing*, Fukuoka, Japan, July 2005.
174. "Cashmere: Resilient Anonymous Routing." Li Zhuang, Feng Zhou, Ben Y. Zhao and Antony Rowstron. *Proceedings of the 2nd Symposium on Networked Systems Design and Implementation (NSDI)*, Boston, MA, May 2005.
175. "Impact of Neighbor Selection on Performance and Resilience of Structured P2P Networks." Byung-Gon Chun, John Kubiawicz and Ben Y. Zhao. *Proceedings of the 4th International Workshop on Peer-To-Peer Systems (IPTPS)*, Ithaca, NY. February 2005.
176. "Hybrid Overlay Structure Based on Random Walk." Ruixiong Tian, Yongqiang Xiong, Qian Zhang, Bo Li, Ben Y. Zhao and Xing Li. *Proceedings of the 4th International Workshop on Peer-To-Peer Systems (IPTPS)*, Ithaca, NY. February 2005.
177. "Deployment of a large scale peer-to-peer social network." Mao Yang, Hua Chen, Ben Y. Zhao, Yafei Dai and Zheng Zhang. *Proceedings of the 1st Workshop on Real, Large Distributed Systems (WORLDS)*, San Francisco, CA. December 2004.
178. "Rapid Mobility via Type Indirection." Ben Y. Zhao, Ling Huang, Anthony D. Joseph and John D. Kubiawicz. *Proceedings of the 3rd International Workshop on Peer-to-Peer Systems (IPTPS)*, San Diego, CA. February 2004.
179. "Exploiting Routing Redundancy via Structured Peer-to-Peer Overlays." Ben Y. Zhao, Ling Huang, Jeremy Stribling, Anthony D. Joseph and John D. Kubiawicz. *Proceedings of the 11th IEEE International Conference on Network Protocols (ICNP)*. Atlanta, GA. November 2003.
180. "Approximate Object Location and Spam Filtering on Peer-to-Peer Systems." Feng Zhou, Li Zhuang, Ben Y. Zhao, Ling Huang, Anthony Joseph, and John Kubiawicz. *Proceedings of ACM/IFIP International Conference on Middleware*, Rio de Janeiro, Brazil. June 2003.
181. "Towards a Common API for P2P Overlays." Frank Dabek, Ben Y. Zhao, Peter Druschel, Ion Stoica and John Kubiawicz. *Proceedings of 2nd International Workshop on Peer-to-Peer Systems (IPTPS)*, Berkeley, CA. February, 2003.
182. "Pond: The First OceanStore Prototype," Sean Rhea, Patrick Eaton, Dennis Geels, Hakim Weatherspoon, Ben Zhao and John Kubiawicz. *Proceedings of the 2nd USENIX Conference on File and Storage Technologies*, San Francisco, CA. April 2003. **Best Student Paper Award.**
183. "Distributed Object Location in a Dynamic Network." Kirsten Hildrum, John D. Kubiawicz, Satish Rao and Ben Y. Zhao. *Proceedings of the Fourteenth ACM Symposium on Parallel Algorithms and Architectures (SPAA)*, Winnipeg, Canada. August 2002.
184. "Locality-aware Mechanisms for Large-scale Networks." Ben Y. Zhao, Anthony Joseph and John Kubiawicz. *Proceedings of the First Workshop on Future Directions in Distributed Computing*



- (FuDiCo), Bertinoro, Italy. June 2002.
185. "Brocade: Landmark Routing on Overlay Networks." Ben Y. Zhao, Yitao Duan, Ling Huang, Anthony D. Joseph, and John D. Kubiawicz. *Proceedings of First International Workshop on Peer-to-Peer Systems (IPTPS)*, Cambridge, MA, March 2002.
  186. "A Markov-based Channel Model Algorithm for Wireless Networks." Almudena Konrad, Ben Y. Zhao, Anthony D. Joseph, Reiner Ludwig. *Proceedings of the Fourth ACM International Workshop on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM)*, July, 2001.  
**Best Paper Award.**
  187. "Bayeux: An Architecture for Scalable and Fault-tolerant Wide-Area Data Dissemination." Shelley Q. Zhuang, Ben Y. Zhao, Anthony D. Joseph, Randy H. Katz and John Kubiawicz. *Proceedings of the Eleventh International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV)*, June, 2001.
  188. "OceanStore: An Architecture for Global-scale Persistent Storage." John Kubiawicz et. al. *Proceedings of the Ninth International Conference on Architecture Support for Programming Languages and Operating Systems (ASPLOS)*, November, 2000.
  189. "Flexible Internetworking of Devices and Controls." Michelle Munson, Todd Hodes, Thomas Fischer, Keung-Hae Lee, Toby Lehman, Ben Zhao. *Proceedings of IECON*, San Jose, CA, December 1999.
  190. "An Architecture for a Secure Service Discovery Service." Steven Czerwinski, Ben Y. Zhao, Todd Hodes, Anthony Joseph, Randy Katz. *Proceedings of the Fifth ACM/IEEE International Conference on Mobile Computing and Networks (MOBICOM)*, Seattle, WA, August 1999.