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RESEARCH INTERESTS

Ubiquitous Computing, Mobile Phone Sensing, and Social Media Mining.

EDUCATION

Ph.D. in Computer Science, Keio University, Japan (2006.9-2009.3)

Visiting Student, in Computer Science, Keio University, Japan (2005.10-2006.8)
Student Exchange Program between XJTU and Keio

M.S. in Computer Science, Xi'an Jiaotong University, China (2003.9-2006.3)

B.S. in Computer Science and Technology, Xi'an Jiaotong University, China (1999.9-2003.7)

EMPLOYMENT

Professor School of Computing, Northwestern Polytechnical Univ., P.R. China (2014.5-)

Associate Professor School of Computing, Northwestern Polytechnical Univ., P.R. China (2011.6-2014.4)

Post-Doc Fellow in Handicom Lab., Institut Telecom SudParis, France (2009.4-2011.5)

Research Assistant 21st COE Program: System Design Paradigm Shift from Intelligence to Life, Japan (2007-2008)

RESEARCH EXPERIENCE

Ongoing projects:

- 2015.1-2019.12, “**Collaborative Sensing with Cyber, Physical and Social Spaces in Smart Cities**”, funded by National Basic Research Program of China (No.2015CB352400)
- 2014.1-2017.12, “**Cross-Space Community Geo-Social Feature Association Analysis and Behavior Prediction**” (Grant No. 61373119), funded by National Natural Science Foundation of China (NSFC), Principal Investigator.
- 2014.1-2017.12. “**Optimized Task Allocation and Data Selection in Mobile Crowd Sensing**”, funded by the Scientific Research Council of Shaanxi Province, Principal Investigator.

- 2014.1-2018.12, “**Opportunistic data forwarding and interactive content delivery in Mobile Social Networks**” (Grant No. 61332005), funded by National Natural Science Foundation of China (NSFC).

Past projects:

- 2013.12-2014.12, “**Content Trending through Social Media**”, funded by Nokia, Principal Investigator.
- 2013.1-2015.12, “**Study of the Models and Algorithms to Social and Community Intelligence**” (Grant No. NCET-12-0466), the State Ministry of Education's Program on New Century Excellent Talents in University, Principal Investigator.
- 2013.1-2014.12, “**Study of the Effects of Social Behaviors in Opportunistic Networks**” (Grant No. 2012JQ8028), funded by Natural Science Foundation of Shaanxi Province, Principal Investigator.
- 2012.1-2014.12, “**Social Interaction Semantics and Topology Mining in Heterogeneous Sensing Environments**” (Grant No. 61103063), funded by National Natural Science Foundation of China (NSFC), Principal Investigator.
- 2011.5-2012.5, “**Mobile Social Sensing and Interaction in Smart Campus**”, funded by Microsoft Research Asia, Co-PI
- 2010.1-2011.5, “**Self-Orchestrating Community Ambient Intelligence Spaces (SOCIETIES)**”, funded by EU-FP7, France.
- 2009.5-2010.12, “**Feel@Home: A Generic Framework for Smart Home Environments**”, funded by EU CELTIC, France.

ACADEMIC ACTIVITIES

Editorial Board Member

- Associate technical editor of IEEE Communications Magazine
- Associate editor of IEEE Transactions on Human-Machine Systems
- Editor of IEEE IT Professional
- Editor of ACM/Springer Journal of Personal and Ubiquitous Computing (PUC)
- Associate editor of Springer Frontiers of Computer Science (FCS)
- Guest editor of IEEE Transactions on Human Machine Systems, Feature Topic on "Situation, Activity and Goal Awareness in Cyber-physical Human-Machine Systems"
- Guest editor of IEEE Communications Magazine, Feature Topic on "Behavior Recognition based on WiFi CSI"
- Guest editor of IEEE Communications Magazine, Feature Topic on "Mobile Crowd Sensing"
- Guest editor of ACM Trans. on Intelligent Systems and Technology, Feature Topic on “Participatory Sensing and Community Intelligence”
- Guest editor of IEEE Internet of Things Journal, Feature Topic on “Mobile Crowd Sensing for IoT”
- Guest editor of World Wide Web Journal, Feature Topic on “Mobile Crowdsourcing”

Conference Chairs

- Program Co-Chair of The IEEE Computer Society Signature Conference on Computers, Software and Applications (COMPSAC 2017) - ITiP Symposium, Italy
- Program Chair of The IEEE International Conference on Cyber, Physical, and Social Computing (CPSCom16), Chengdu, China
- Program Co-Chair of The International Symposium on Social Networks Analysis, Management and Security (SNAMS16), Austria
- Workshop Chair of The IEEE International Conference on Internet of People (IoP'16), France
- General Co-Chair of the 2015 IEEE International Conference on Ubiquitous Intelligence and Computing (UIC'15), Beijing, China
- General Co-Chair of The 3rd IEEE International Workshop on Situation, Activity and Goal Awareness (SAGAware '15), Singapore
- Workshop Chair of the 2014 IEEE/ASE International Conference on BigData Science and Computing (BigData Science'14), Beijing, China
- Program Chair of the 10th IEEE International Conference on Ubiquitous Intelligence and Computing (UIC'13), Italy
- Program Co-Chair of the 9th FTRA International Conference on Future Information Technology (FutureTech'14), China
- General Chair of the 2014 IEEE International Workshop on Social and Community Intelligence (SCI'14) @PerCom'14, Hungary
- Program Vice-Chair of the The 5th International Conference on Ambient Systems, Networks and Technologies (ANT'14), Belgium
- Vice Program Chair of the 14th IEEE International Conference on Computer and Information Technology (CIT'14)
- Workshop Chair of the 2013 IEEE International Conference on Internet of Things (iThings'13), Dalian, China
- General Chair of The 1st ACM International Symposium on Social and Community Intelligence (SCI-11) at ACM UbiComp-11

Conference Program Committee Members

- IEEE PerCom'15,'16,17
- IEEE ICC'16, GlobeCom'16, ICCCN'16
- MobiQuitous'15,'16
- IEEE CSCWD'15
- IEEE SMC'15, 16
- IEEE COMPSAC'15, 16
- IEEE CoMoRea'13-16, SOSE'16,17

HONORS AND AWARDS

- 2015, Outstanding Contribution Award, Frontiers of Computer Science Journal.

- 2015, Best service Award, IEEE 12th International Conference on Ubiquitous Intelligence and Computing
- 2015, Nominate Video Award, IEEE 12th International Conference on Ubiquitous Intelligence and Computing
- 2014, The Second Class of Natural Scientific Award, State Education Ministry of China
- 2014, Best Paper Award of BigDataScience'14
- 2013, The Scientific and Technology New Star of Shaanxi Province, China
- 2013, IEEE Service Award (@IEEE iThings'13)
- 2013, IEEE Best Paper Award of the IEEE International Conference on Cyber, Physical, and Social Computing (IEEE CPSCom'13)
- 2012, New Century Excellent Talents in University, State Education Ministry of China
- 2012, The Wu Yajun Excellent Young Teachers Award, Northwestern Polytechnical University
- 2012, Best Paper Award of Active Media Technology (AMT'2012)
- 2012, Best Paper Award of Grid and Pervasive Computing (GPC'2012)
- 2009, Chinese Government Award for Outstanding Self-Financed Students Abroad

SELECTED JOURNAL PAPERS

1. **Bin Guo**, Yan Liu, Wenle Wu, Zhiwen Yu, Qi Han. "ActiveCrowd: A Framework for Optimized Multi-Task Allocation in Mobile Crowdsensing Systems", *IEEE Transactions on Human-Machine Systems*, 2016.
2. **Bin Guo**, Zhiwen Yu, Liming Chen, Xingshe Zhou, Xiaojuan Ma. "MobiGroup: Enabling Lifecycle Support to Social Activity Organization and Suggestion with Mobile Crowd Sensing", *IEEE Transactions on Human-Machine Systems*, vol. 46, no. 3, 2016, 390-402.
3. Chao Chen, Daqing Zhang, Xiaojuan Ma, **Bin Guo**, Leye Wang, Yasha Wang, and Edwin Sha. "CrowdDeliver: Planning City-wide Package Delivery Paths Leveraging the Crowd of Taxis", *IEEE Transactions on Intelligent Transportation Systems*, 2016.
4. Zhiwen Yu, Miao Tian, Zhu Wang, **Bin Guo**, Tao Mei. "Shop Type Recommendation Leveraging the Data from Social Media and Location-based Services", *ACM Transactions on Knowledge Discovery from Data*, vol. 11, no. 1, 2016, pp. 1-21.
5. Huihui Chen, **Bin Guo***, Zhiwen Yu. "CooperSense: A Cooperative and Selective Picture Forwarding Framework based on Tree Fusion", *International Journal of Distributed Sensor Networks*, 2016.
6. **Bin Guo**, Chao Chen, Daqing Zhang, Zhiwen Yu, Alvin Chin. "Mobile Crowd Sensing and Computing: When Participatory Sensing Meets Participatory Social Media", *IEEE Communications Magazine*, vol. 54, no. 2, 2016, pp. 131-137.
7. **Bin Guo**, Huihui Chen, Zhiwen Yu, Xing Xie, Daqing Zhang. "PicPick: A Generic Data Selection Framework for Mobile Crowd Photography", *SI on Data Intelligence on the Internet of Things*, *ACM/Springer Journal of*

- Personal and Ubiquitous Computing (PUC)*, vol. 20, no. 3, 2016, pp. 325-335
8. **Bin Guo**, Huihui Chen, Zhiwen Yu, Xing Xie, Shenlong Huangfu, Daqing Zhang. "FlierMeet: A Mobile Crowdsensing System for Cross-Space Public Information Reposting, Tagging, and Sharing", *IEEE Transactions on Mobile Computing*, 2015.
 9. **Bin Guo**, Zhiwen Yu, Daqing Zhang, Xingshe Zhou."Cross-Community Sensing and Mining (CSM)", *IEEE Communications Magazine*, 2014.
 10. **Bin Guo**, Zhiwen Yu, Daqing Zhang, Huilei He, Jilei Tian, Xingshe Zhou."Toward a Group-Aware Smartphone Sensing System", *IEEE Pervasive Computing*, 2014.
 11. **Bin Guo**, Daqing Zhang, Dingqi Yang, Zhiwen Yu, Xingshe Zhou."Enhancing Memory Recall via an Intelligent Social Contact Management System", *IEEE Transactions on Human-Machine Systems*, Vol. 44, No. 1, 2014.
 12. **Bin Guo**, Alvin Chin, Zhiwen Yu, Runhe Huang, Daqing Zhang."An Introduction to the Special Issue on Participatory Sensing and Crowd Intelligence", *ACM Transactions on Intelligent Systems and Technology*, vol. 6, no. 3, 2015.
 13. Zhiwen Yu, Zhu Wang, Huilei He, Xinjiang Lu, **Bin Guo**."Discovering Information Propagation Patterns in Microblogging Services", *ACM Transactions on Knowledge Discovery from Data*, 2015.
 14. Zhiwen Yu, Zhitao Wang, Liming Chen, **Bin Guo**."Featuring, Detecting, and Visualizing Human Sentiment in Chinese Micro-blogs", *ACM Transactions on Knowledge Discovery from Data*, vol. 10, no. 4, 2015.
 15. **Bin Guo**, Zhiwen Yu, Xingshe Zhou."A Data-Centric Framework for Cyber-Physical-Social Systems", *IEEE IT Professional*, From the Editors, vol. 17, no. 6, 2015, pp. 4-7.
 16. Zhiwen Yu, Hui Wang, **Bin Guo**, Tao Gu, and Tao Mei. "Supporting Serendipitous Social Interaction using Human Mobility Prediction", *IEEE Transactions on Human-Machine Systems*, vol. 45, no. 6, 2015, pp. 811-818
 17. Daqing Zhang, Leye Wang, Haoyi Xiong, **Bin Guo**. "4W1H in Mobile Crowd Sensing", *IEEE Communications Magazine*, vol. 52, no. 8, 2014, pp. 42-48.
 18. **Bin Guo**, Zhiwen Yu, Daqing Zhang, Huilei He, Jilei Tian, Xingshe Zhou."Toward a Group-Aware Smartphone Sensing System", *IEEE Pervasive Computing*, vol. 13, no. 4, 2014, pp. 80-88.
 19. **Bin Guo**, Zhiwen Yu, Daqing Zhang, Xingshe Zhou."Cross-Community Sensing and Mining (CSM)", *IEEE Communications Magazine*, vol. 52, no. 8, 2014, pp. 144-152.
 20. **Bin Guo**, Daqing Zhang, Dingqi Yang, Zhiwen Yu, Xingshe Zhou. "Enhancing Memory Recall via an Intelligent Social Contact Management System", *IEEE Transactions on Human-Machine Systems*, Vol. 44., No. 1, 2014, pp. 78-91
 21. Chao Chen, Daqing Zhang, **Bin Guo**, Xiaojuan Ma, Gang Pan, and Zhaohui Wu."TripPlanner: Personalized Trip Planning Leveraging Heterogeneous Crowdsourced Digital Footprints", *IEEE Transactions on*

Intelligent Transportation Systems, 2014.

22. **Bin Guo**, Yunji Liang, Zhiwen Yu, Minshu Li, Xingshe Zhou. "From Mobile Phone Sensing to Human Geo-Social Behavior Understanding", *Computational Intelligence*, 2014.
23. **Bin Guo**, Francesco Calabrese, Emiliano Miluzzo, Micro Musolesi. "Mobile Crowd Sensing: Part 1", *IEEE Communications Magazine*, Editorial Note, vol. 52, no. 8, 2014, pp. 20-21.
24. **Bin Guo**, Daqing Zhang, Zhu Wang, Zhiwen Yu, Xingshe Zhou. "Opportunistic IoT: Exploring the Harmonious Interaction between Human and the Internet of Things", *Journal of Network and Computer Applications (JNCA)*, Vol. 36, No. 6, Elsevier, 2013, pp. 1531-1539.
25. **Bin Guo**, Daqing Zhang, Zhiwen Yu, Yunji Liang, Zhu Wang, Xingshe Zhou. "From the Internet of Things to Embedded Intelligence", *World Wide Web Journal (WWWJ)*, Vol. 16, No. 4, Springer, 2013, pp. 399-420.
26. **Bin Guo**, Daqing Zhang, Lin Sun, Zhiwen Yu, Xingshe Zhou. "iCROSS: Towards a Scalable Infrastructure for Cross-Domain Context Management", *ACM/Springer Journal of Personal and Ubiquitous Computing (PUC)*, Vol. 17, No. 3, 2013, pp. 591-602.
27. Daqing Zhang, **Bin Guo**, Zhiwen Yu. "The Emergence of Social and Community Intelligence". *IEEE Computer*, Vol. 44, No. 7, 2011, pp. 21-28.
28. **Bin Guo**, Ryota Fujimura, Daqing Zhang, Michita Imai. "Design-in-Play: Improving the Variability of Indoor Pervasive Games". *Multimedia Tools and Applications*, Springer, Vol. 59, No. 1, 2012, pp. 259-277.
29. **Bin Guo**, Daqing Zhang, Michita Imai. "Toward a Cooperative Programming Framework for Context-Aware Applications". *ACM/Springer Journal of Personal and Ubiquitous Computing (PUC)*, Vol. 15, No. 3, 2011, pp. 221-233.

SELECTED CONFERENCE PAPERS

30. Yan Liu, **Bin Guo***, Yang Wang, Wenle Wu, Zhiwen Yu, Daqing Zhang. "TaskMe: Multi-Task Allocation in Mobile Crowd Sensing", The 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'16*), 2016.
31. Jiafan Zhang, **Bin Guo***, Qi Han, Yi Ouyang, Zhiwen Yu. "CrowdStory: Multi-layered Event Storyline Generation with Mobile Crowdsourced Data", The 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'16*), poster, 2016.
32. Jing Li, **Bin Guo***, Zhu Wang, Mingyang Li, Zhiwen Yu. "Where to Place the Next Outlet? Harnessing Cross-Space Urban Data for Multi-Scale Chain Store Recommendation", The 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'16*), poster, 2016.
33. Qianru Wang, **Bin Guo***, Ge Yong, Gang Zhou, Zhiwen Yu. "CrowdWatch: Pedestrian Safety Assistance with Mobile Crowd Sensing", The 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'16*), poster, 2016.

34. Huihui Chen, **Bin Guo***, Zhiwen Yu, Alvin Chin, Jilei Tian, Chao Chen, "Optimizing Taxiing with Detours by Using Traffic Dynamics and Driving Habits", The 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'16*), Poster Session, 2016.
35. Huihui Chen, **Bin Guo***, Zhiwen Yu, Qi Han, Daqing Zhang, Xingshe Zhou. "Toward Real-time and Cooperative Mobile Visual Sensing and Sharing", IEEE International Conference on Computer Communications (*IEEE INFOCOM'16*), 2016.
36. Tong Xin, **Bin Guo***, Zhu Wang, Mingyang Li, Zhiwen Yu. "FreeSense: Indoor Human Identification with WiFi Signals", IEEE Global Communications Conference (*IEEE GlobeCom'16*), 2016.
37. Tong Guo, **Bin Guo***, Jiafan Zhang, Zhiwen Yu, Xingshe Zhou. "CrowdTravel: Leveraging Heterogeneous Crowdsourced Data for Scenic Spot Profiling and Recommendation", The 2016 Pacific-Rim Conference on Multimedia (*PCM'16*), 2016.
38. Meng He, **Bin Guo***, Huihui Chen, Alvin Chin, Jilei Tian, Zhiwen Yu. "WhozDriving: Abnormal Driving Trajectory Detection by Studying Multi-Faceted Driving Behavior Features", The 2016 International Conference on Big Data Computing and Communications (*BigCom'16*), 2016.
39. Yan Liu, **Bin Guo***, Wenle Wu, Zhiwen Yu, Yang Wang, Daqing Zhang. "Towards a Multitask Worker Recruitment Framework for Mobile Crowdsensing", The 14th ACM International Conference on Mobile Systems, Applications, and Services (*MobiSys'16*), Poster Session, 2016.
40. He Du, Zhiwen Yu, Fei Yi, Zhu Wang, Qi Han, **Bin Guo**. "Group Mobility Classification and Structure Recognition Using Mobile Devices", IEEE International Conference on Pervasive Computing and Communications (*IEEE PerCom'16*), 2016.
41. **Bin Guo**, Wenqian Nan, Zhiwen Yu, Xing Xie, Huihui Chen, Xingshe Zhou. "TaskMe: A Cross-Community, Quality-Enhanced Incentive Mechanism for Mobile Crowd Sensing", The 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'15*), poster, Osaka, Japan.
42. Zhiwen Yu, Rong Du, **Bin Guo**, Tao Gu, Zhu Wang, Daqing Zhang, "Who Should I Invite for My Party? Combining User Preference and Influence Maximization for Social Events," The 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'15*), September 7-11, Osaka, Japan.
43. Miao Tian, Zhiwen Yu, Zhu Wang, **Bin Guo**. "Combining Social Media and Location-based Services for Shop Type Recommendation", The 2015 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'15*), poster, September 7-11, Osaka, Japan.
44. Huang Xu, Zhiwen Yu, Hui Xiong, **Bin Guo**, Zhuheng Shu. "Learning Career Mobility and Human Activity Patterns for Job Change Analysis", 2015 IEEE International Conference on Data Mining (*ICDM'15*), Atlantic City, USA, 2015.
45. **Bin Guo**, Huihui Chen, Zhiwen Yu, Xing Xie, Shenlong Huangfu, Zhu Wang. "FlierMeet: Cross-Space Public

- Information Reposting with Mobile Crowd Sensing", The 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing (*ACM UbiComp'14*), poster, September 13-17, Seattle, USA
46. **Bin Guo**, Zhiwen Yu, Daqing Zhang, Xingshe Zhou. "From Participatory Sensing to Mobile Crowd Sensing", The IEEE Pervasive Computing and Communication Workshops (*SCI-14@PerCom'14*), 2014.
 47. **Bin Guo**, Zhiwen Yu, Daqing Zhang, Xingshe Zhou. "MemPhone: From Personal Memory Aid to Community Memory Sharing using Mobile Tagging", The IEEE Pervasive Computing and Communication Conference (*PerCom'13*), WIP session, San Diego, California, USA, 2013.
 48. **Bin Guo**, Huilei He, Zhiwen Yu, Daqing Zhang, Xingshe Zhou. "GroupMe: Supporting Group Formation with Mobile Sensing and Social Graph Mining", The 9th International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services (*MobiQuitous'12*), Beijing, China, 2012.

BOOK PUBLICATIONS

49. **Bin Guo**, Daniele Riboni, Peizhao Hu, **Creating Personal, Social, and Urban Awareness through Pervasive Computing**, IGI Global, USA, Oct. 2013.

BOOK CHAPTERS

50. Daqing Zhang, Zhiyong Yu, **Bin Guo**, Zhu Wang. "**Exploiting Personal and Community Context in Mobile Social Networks**". Mobile Social Networking: An Innovative Approach, Springer, 2013.
51. **Bin Guo**, Lin Sun, Daqing Zhang. "Tools for Handling Context Semantics". Digital Home Networking, Wiley, 2012.
52. **Bin Guo**, Daqing Zhang, Michita Imai. "**An Ontology-based Infrastructure for Smart Homes**". Handbook of Research on Ambient Intelligence and Smart Environments: Trends and Perspectives, IGI Global, 2011.