DONG WANG

Department of Computer Science
University of Illinois at Urbana-Champaign
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Urbana, IL 61801-2302

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RESEARCH INTERESTS

- Big Data Analysis, Reliable Information Distillation Systems, Quantitative Modeling
- Network Science, Trust and Link Analysis in Information and Social Networks
- Cyber-Physical Systems, MapReduce/Hadoop, Embedded and Real-Time Systems
- Social (Human-Centric) Sensing and Crowdsourcing Applications

EDUCATION

Ph.D in Computer Science July 2007-Dec. 2012
University of Illinois at Urbana-Champaign (UIUC)
Dissertation: On Quantifying the Quality of Information in Social Sensing
Advisor: Prof. Tarek Abdelzaher
Committee members:
Prof. Jiawei Han (University of Illinois at Urbana-Champaign)
Prof. Thomas Huang (University of Illinois at Urbana-Champaign)
Dr. Charu C. Aggarwal (IBM Research)

Master of Science in Electrical Engineering Sept. 2004-July 2007
Peking University (PKU), Beijing China
Thesis: Study on Information Anti-Collision Problems of RFID Technique
Advisor: Prof. Yuping Zhao

B.Eng. in Electrical Engineering, Highest honors Sept. 2000-July 2004
University of Electronic Science and Technology of China (UESTC)

AWARDS AND HONORS

- Wing Kai Cheng Fellowship, University of Illinois at Urbana Champaign — August 2012
- Best Paper Award, IEEE 16th RTAS 2010, Stockholm, Sweden — April 2010
- Outstanding EECS Graduate Research Award, Peking University — July 2007
- Distinguished Graduate Research Award, Peking University — April 2007
- Graduate Innovative Research Award, Peking University — October 2006
- Outstanding Student Award, Peking University — 2005-2006
- Peking University May Fourth Scholarship, Peking University — 2004-2005
- Outstanding Graduate Award, Sichuan Province, China — July 2004
- Excellent Bachelor Thesis of UESTC — June 2004
- Exceptional Outstanding Graduate Award, UESTC — 2003-2004
- UESTC Exceptional Outstanding Scholarship, UESTC — 2001, 2002, 2003

REFERRED PUBLICATIONS

Paper Code: [J]: Journal; [C]:Conference; [W]:Workshop;

⋆ Book

- **Dong Wang**, Tarek Abdelzaher, and Lance Kaplan. Social Sensing: Building Reliable Systems on Unreliable Data. *Elsevier*, (expected in) late 2014.

⋆ Book Chapter

- Tarek Abdelzaher and **Dong Wang**. Analytic Challenges in Social Sensing. *The Art of Wireless Sensor Networks, Springer*, 2014.

⋆ Papers

1. **[J] Dong Wang**, Tarek Abdelzaher, and Lance Kaplan. Surrogate Mobile Sensing. *IEEE Communications Magazine*, Accepted with minor revision, 2014
2. **[J] Dong Wang**, Tanvir Amin, Tarek Abdelzaher, Dan Roth, Clare Voss, Lance Kaplan, Stephen Tratzy, Jamal Laoudiy, and Douglas Briesch. Provenance-assisted Classification in Social Networks. *To appear in IEEE Journal of Selected Topics in Signal Processing (J-STSP)*, 2014
3. **[C]** Md Tanvir Amin, Tarek Abdelzaher, **Dong Wang**, Boleslaw Szymanski. "Crowdsensing with Polarized Sources," *In Proc. 10th IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS)*, Marina Del Rey, CA, May 2014.
4. **[C]** Siyu Gu, Chenji Pan, Hengchang Liu, Shen Li, Shaohan Hu, Lu Su, Shiguang Wang, **Dong Wang**, Tanvir Amin, Ramesh Govindan, Charu Aggarwal, Raghu Ganti, Mudhakar Srivatsa, Amotz Barnoy, Peter Terlecky, Tarek Abdelzaher "Data Extrapolation in Social Sensing for Disaster Response," *In Proc. 10th IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS)*, Marina Del Rey, CA, May 2014.
5. **[C] Dong Wang**, Tanvir Amin, Tarek Abdelzaher, Lance Kaplan, et al. Using Humans as Sensors: An Estimation-theoretic Perspective. To appear in *The 13th ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN'14),* Berlin, Germany, April 2014. (acceptance rate: 20%)
6. **[J] Dong Wang**, Lance Kaplan and Tarek Abdelzaher. Maximum Likelihood Analysis of Conflicting Observations in Social Sensing. *ACM Transactions on Sensor Networks (ToSN)*, Vol. 10, No. 2, Article 30, January, 2014.
7. **[C] Dong Wang**, Tarek Abdelzaher, Lance Kaplan, Raghu Ganti, Shaohan Hu, and Hengchang Liu. Exploitation of Physical Constraints for Reliable Social Sensing. *IEEE 34th Real-Time Systems Symposium (RTSS'13),* Vancouver, Canada, December, 2013 (acceptance rate: 22%)
8. **[J] Dong Wang**, Lance Kaplan, Tarek Abdelzaher and Charu C. Aggarwal. On Credibility Tradeoffs in Assured Social Sensing. *IEEE Journal On Selected Areas in Communication (JSAC)*, Volume 31, Issue 6, 2013.
9. **[C] Dong Wang**, Tarek Abdelzaher, Lance Kaplan and Charu C. Aggarwal. Recursive Fact-finding: A Streaming Approach to Truth Estimation in Crowdsourcing Applications. *The 33rd International Conference on Distributed Computing Systems (ICDCS'13)* Philadelphia, PA, July 2013. (acceptance rate: 13%)
10. **[C]** Hongzhao Huang, Arkaitz Zubiaga, Heng Ji, Hongbo Deng, **Dong Wang**, Hieu Khac Le, Tarek Abdelzaher, Jiawei Han, Alice Leung, John Hancock and Clare Voss, "Tweet

Ranking based on Heterogeneous Networks," *In Proc. 24th International Conference on Computational Linguistics,* Mumbai, India, December 2012.

11. **[C] Dong Wang**, Lance Kaplan, Tarek Abdelzaher and Charu C. Aggarwal. On Scalability and Robustness Limitations of Real and Asymptotic Confidence Bounds in Social Sensing. *The 9th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON'12),* Seoul, Korea, from June, 2012. (acceptance rate: 19%)

12. **[C] Dong Wang**, Lance Kaplan, Hieu Le and Tarek Abdelzaher. On Truth Discovery in Social Sensing: A Maximum Likelihood Estimation Approach. *The 11th ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN'12),* Beijing, China April 2012. (acceptance rate: 15%)

13. **[J] Dong Wang**, Tarek Abdelzaher, Bodhi Priyantha, Jie Liu, Feng Zhao. Energy-optimal Batching Periods for Asynchronous Multistage Data Processing on Sensor Nodes: Foundations and an mPlatform Case Study. *Journal of Real-Time Systems*, Volume 48, Issue 2 (2012), Page 135-165.

14. **[C] Dong Wang**, Tarek Abdelzaher, Hossein Ahmadi, Jeff Pasternack, Dan Roth, Manish Gupta, Jiawei Han, Omid Fatemieh, and Hieu Le, Charu Aggarwal. On Bayesian Interpretation of Fact-finding in Information Networks. *14th International Conference on Information Fusion*(Fusion'11), Chicago, IL, July, 2011.

15. **[C] Dong Wang**, Hossein Ahmadi, Harsha Chenji, Tarek Abdelzaher, Radu Stoleru, Charu Aggarwal. Optimizing Quality-of-Information in Cost-sensitive Sensor Data Fusion. *7th IEEE International Conference on Distributed Computing in Sensor Systems* (DCoSS'11), Barcelona, Spain, June 2011. (acceptance rate: 28%)

16. **[W] Dong Wang**, Tarek Abdelzaher, Lance Kaplan, and Charu C. Aggarwal. On Quantifying the Accuracy of Maximum Likelihood Estimation of Participant Reliability in Social Sensing. *8th International Workshop on Data Management for Sensor Networks* (DMSN'11), Seattle, WA, August 2011.

17. **[J]** Jin Heo, Praveen Jayachandran, Insik Shiny, **Dong Wang**, Tarek Abdelzaher, Xue Liu. OptiTuner: On Performance Composition and Server Farm Energy Minimization Application. *IEEE Transactions on Parallel and Distributed Systems*, Vol. 22, No. 11, November 2011.

18. **[C]** Qing Cao, **Dong Wang**, Tarek Abdelzaher, Bodhi Priyantha, Jie Liu, Feng Zhao. Energy-optimal Batching Periods for Asynchronous Multistage Data Processing on Sensor Nodes: Foundations and an mPlatform Case Study. *16th IEEE Real-Time and Embedded Technology and Applications Symposium* (RTAS'10), Stockholm, Sweden, April, 2010 **(Best Paper Award)**. (acceptance rate: 22%)

19. **[C]** Qing Cao, **Dong Wang**, Tarek Abdelzaher, End-User Diagnosis of Communication Paths in Sensor Network Systems. *The 38th International Conference on Parallel Processing* (ICPP 09),Vienna, Austria, 2009. (acceptance rate: 32%)

20. **[W]** Jin Heo, Praveen Jayachandran, Insik Shiny, **Dong Wang**, and Tarek Abdelzaher. OptiTuner: An Automatic Distributed Performance Optimization Service and a Server Farm Application. *FeBID:Fourth International Workshop on Feedback Control Implementation and Design in Computing Systems and Networks*, San Francisco, California, April, 2009

21. **[J]** Jianwei Wang, **Dong Wang**, TIMO Korhonen, Yuping Zhao. A Novel Anti-Collision

Protocol in Multiple Readers RFID Sensor Networks. *Chinese Journal of Sensors and Actuators*, Vol.21 No.8, 2008.

22. **[C] Dong Wang**, Zimin Liu, Yuping Zhao, Yan Luo. A Novel Unicast Multiplexing Scheme to Guarantee the QoS of VoWLAN. *49th Annual IEEE GLOBECOM Conference*, San Francisco, USA, Nov.27-Dec.1, 2006.
23. **[C] Dong Wang**, Jianwei Wang, Yuping Zhao. A Novel Solution to the Reader Collision Problem in RFID System. *IEEE 2nd International Conference on Wireless Communications, Networking and Mobile Computing*, WuHan China, Sept., 2006.
24. **[J] Dong Wang**, Zimin Liu, Yuping Zhao, Yan Luo. A Novel Unicast Based Multiplexing Scheme to Improve the Capacity of VoWLAN. *Journal of Peking University*, Vol. 1 No. 3, Sept. 30, 2006.
25. **[C]** Jianwei Wang, **Dong Wang**, Yuping Zhao. A Novel Anti-Collision Algorithm with Dynamic Tag Number Estimation. *IEEE International Conference on Communication Technology*, Gulin, China, Nov. 27-30, 2006
26. **[C]** Jianwei Wang, **Dong Wang**, Yuping Zhao. Multi-path Combining Scheme for ISI Suppression in DS UWB System. *IEEE 2nd International Conference on Wireless Communications, Networking and Mobile Computing*, WuHan China, Sept., 2006.
27. **[W] Dong Wang**, Yuping Zhao. Analysis and Design of UWB MAC Based on Ad Hoc Networks. *Proceedings of 10th Annual Joint Workshop on Modern Electronic Technology and Applications*, Beijing, China, Nov., 2005.
28. **[J] Dong Wang**, Kun Qiu, Licun Wang. A New DBA Algorithm in EPON Upstream Channel in Support of SLA. *Journal on Communications of China*, Vol. 26 No. 6, June, 2005.
29. **[J] Dong Wang**, Kun Qiu, Licun Wang. Design of of DBA algorithm in EPON Upstream Channel in Support of QoS. *Journal of UESTC*, Vol.33 No.6, Dec, 2004.
30. **[J]** Licun Wang, Kun Qiu, **Dong Wang**. Design of MAC of Fixed Frame Size of EPON. *Journal of UESTC*, Vol.33 No.6, Dec, 2004.

SOFTWARE AND TOOLS BUILT

- **Apollo**: A reliable data analysis tool that fights information overload and extracts high quality information from large scale, heterogeneous, and dynamic open sources of data (e.g., Twitter, Crowdsourcing)
  - Apollo is now being used by different branches in Army Research Lab (ARL), CMU, UIUC, UCSB, RPI and IBM Research
  - Apollo was selected as one of the top showcases in Network Science Collaborative Technology Alliance (NS CTA) funded by ARL in 2011, 2012, 2013
- **Smarter Energy**: A energy saving task scheduling system on mPlatform, the next generation heterogeneous embedded device developed by Microsoft Research
  - Smarter Energy is used by Microsoft Research and UIUC. It won the *Best Paper* Award of RTAS 10

RESEARCH EXPERIENCE

Postdoctoral Research Associate January 2013 - Now
University of Illinois at Urbana-Champaign Urbana, IL

Research Project 1: On-line Social Media as "Sensor Networks"

- Developed a new model that views open on-line social media as large-scale "sensor networks" for observing events in the physical world
- Explored the social network to suppress potential rumor propagation between non-independent information sources
- Incorporated physical world constraints to assess the correlations between observed variables
- My work was mentioned explicitly in the *National Academies Press* as a "good example of Army's cross-genre research" in 2013

Research Project 2: General Classifier using Social Network Data

- Developed a general-purpose classifier that offers statistical confidence estimates in results while exploiting both object features and social network information
- Applied the developed classifier in several real world scenarios (e.g., fact-finding, language/dialect classification and geo-tagging) and achieved high classification accuracy

Research Project 3: Provenance-assisted Diagnosis in Medical Applications

- Developing a provenance-assisted inference system to help disease diagnosis using noisy data from medical applications

Research Assistant August 2007 - Dec. 2012
University of Illinois at Urbana-Champaign Urbana, IL

Research Project 1: Apollo: Assured Information Distillation System for Big Social Sensing Data

- Developed an assured information distillation system, called Apollo, to extract high quality information from the big sensing data contributed by the huge crowd, which is being used in multiple projects at UIUC, CMU, UCSB, RPI, IBM, and Army Research Lab
- Applied Apollo in various real world applications including large scale real event/disaster tracking with millions of sources and tweets, smart road applications with millions of GPS samples, campus free parking lot identification and so on
- Demonstrated to Mr. Gary Martin (the Executive Deputy to the Commanding General), Dr. Thomas Russell (the Director of Army Research Lab), and the United States Army Intelligence and Security Command (only very top projects funded by Army Research Lab were selected)

Research Project 2: Analytic Foundations of Assured Truth Discovery in Social Sensing

- Developed the first maximum likelihood estimator (MLE) to evaluate the source reliability and information accuracy in social sensing applications, given neither in advance
- Determined the accuracy bounds of the maximum likelihood estimation by computing the Cramer-Rao lower bound (CRLB) of the estimation
- Generalized the analytical framework to resolve conflicting observations from different information sources and incorporated dependency constraints of sources and variables

- Developed an on-line truth estimation scheme that recursively updates the credibility estimation with real-time data streams in social sensing applications

Research Project 3: Energy-Optimal System on Heterogeneous Embedded Device

- Developed an optimal task period allocation system to save energy by exploiting heterogeneity of multi-processor embedded devices
- Implemented the developed system on mPlatform, a heterogeneous sensor platform from Microsoft Research, and showed non-trivial energy savings (*the best paper award of RTAS'10*)

Research Project 4: Optimizing Sensor Data Collection Cost in Data Fusion Applications

- Designed a hybrid cost-sensitive modeling scheme that directly optimizes the application-level information metric and accommodates cost constraints imposed by sensor nodes
- Demonstrated a nice trade-off between prediction accuracy and cost savings achieved by the designed scheme compared to the state of the art

Research Assistant Sept. 2004 - July 2007
Peking University Beijing, China

Research Project 1: Anti-Collision MAC Protocol Design in RFID System

- Developed a comprehensive MAC layer framework to solve the tag collision problem (TCP) and reader collision problem (RCP) in RFID system.
- Accomplished the RFID MAC communication protocol design and submitted to China RFID Communication Standard Group

Research Project 2: QoS Provisioning for VoIP Service over WLAN (VoWLAN System)

- Established Voice over WLAN simulation and experimental testbed
- Developed a novel unicast multiplexing scheme that doubled the network voice capacity and provided satisfied QoS performance of VoIP service

Undergraduate Research Assistant Dec. 2003 - July 2004
University of Electronic Science and Technology of China Chengdu, China

Research Project: Efficient Medium Access Schemes in Ethernet Passive Optical Network (EPON)

- Developed two QoS supportive dynamic bandwidth allocation (DBA) schemes and a SLA (service level agreement) supportive scheme in EPON system to provide guaranteed QoS performance and meet the service standards of various types of users

DEMOS

1. Integrated Analysis of Social and Information Links, with Tanvir Amin, Tarek Abdelzaher, et al. *Army Research Lab Network Science Collaborative Technology Alliance Projects Review*, Delaware, April 2013
2. Fighting Information Overload, with Hieu Le, Tarek Abdelzhaer, et al. *Army Research Lab Network Science Collaborative Technology Alliance Projects Review*, August 2012
3. Free-form Text Summarization in Social Sensing, with Hongzhao Huang, Heng Ji, Tarek Abdelzaher, et al. *11th ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN 12)*, Beijing, China, April 2012

4. Distilling Likely Truth from Noisy Streaming Data with Apollo, with Hieu Le, Tarek Abdelzaher, et al. *9th ACM Conference on Embedded Networked Sensor Systems (Sensys 11)*, Seattle, Nov. 2011
5. Fact Finding from Noisy Data, with Hieu Le, Tarek Abdelzhaer, et al. *Army Research Lab Network Science Collaborative Technology Alliance Projects Review*, August 2011

PRESENTATIONS

1. Exploitation of Physical Constraints for Reliable Social Sensing. *IEEE 34th Real-Time Systems Symposium (RTSS'13),* Vancouver, Canada, December, 2013
2. Recursive Fact-finding: A Streaming Approach to Truth Estimation in Crowdsourcing Applications. *The 33rd International Conference on Distributed Computing Systems (ICDCS'13)* Philadelphia, PA, July 2013.
3. On Scalability and Robustness Limitations of Real and Asymptotic Confidence Bounds in Social Sensing. *The 9th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks* (SECON'12), Seoul, Korea, from June, 2012.
4. On Truth Discovery in Social Sensing: A Maximum Likelihood Estimation Approach. *The 11th ACM/IEEE Conference on Information Processing in Sensor Networks* (IPSN'12), Beijing, China April 2012.
5. On Quantifying the Accuracy of Maximum Likelihood Estimation of Participant Reliability in Social Sensing. *8th International Workshop on Data Management for Sensor Networks* (DMSN'11), Seattle, WA, August 2011.
6. Optimizing Quality-of-Information in Cost-sensitive Sensor Data Fusion. *7th IEEE International Conference on Distributed Computing in Sensor Systems* (DCoSS'11), Barcelona, Spain, June 2011.
7. Energy-optimal Batching Periods for Asynchronous Multistage Data Processing on Sensor Nodes: Foundations and an mPlatform Case Study. *16th IEEE Real-Time and Embedded Technology and Applications Symposium* (RTAS'10), Stockholm, Sweden, April, 2010 **(Best Paper Award)**.
8. A Novel Unicast Multiplexing Scheme to Guarantee the QoS of VoWLAN. *49th Annual IEEE GLOBECOM Conference*, November, 2006, San Francisco, USA
9. A Novel Solution to the Reader Collision Problem in RFID System. *IEEE 2nd International Conference on Wireless Communications, Networking and Mobile Computing*, WuHan, China, Sept., 2006,
10. A Novel UWB MAC Designed for Ad Hoc Networks. *10th Annual Joint Workshop on Modern Electronic Technology and Applications*, Beijing, China, November, 2005.

INVITED TALKS

1. Dong Wang and Lance Kaplan, Assured Fact-Finding, *U.S Army Research Lab, Review Management Board (RMB) Meeting for Five Years*, Adelphi, MD, November, 2013
2. Dong Wang, Social Sensing: A Reliability Perspective, *Department of Computer Science, University of California at Santa Barbra (UCSB)* , Santa Barbara, CA, November, 2013
3. Dong Wang, Reliable Crwodsensing and Its Future Applications in Health, *Department of Health Information Management, University of Pittsburgh*, Pittsburgh, Pennsylvania, November, 2013

4. Dong Wang, Social Sensing in an Information-rich World, *Department of Social and Decision Sciences, Carnegie Mellon University*, Pittsburgh, Pennsylvania, November, 2013
5. Dong Wang, Social Sensing: Building Reliable Systems on Unreliable Data, *Department of Computer Science and Engineering, University of California at Davis (UC Davis)*, Davis, CA, October, 2013
6. Dong Wang, Reliable Social Sensing, *Department of Computer Science and Engineering, Pennsylvania State University*, University Park, Pennsylvania, October, 2013
7. Dong Wang, Assured Information Distillation Systems in Social Sensing, *Department of Computer Science, Rensselaer Polytechnic Institute (RPI)*, Troy, New York, September, 2013
8. Dong Wang, Applications of Assured Knowledge Discovery, Network Science *Collaborative Technology Alliance review held by Army Research Lab*, Delaware, April, 2013
9. Dong Wang, On Truth Discovery in Reliable Social Sensing, *Department of Computer Science*, UIUC, December, 2011

PATENTS

1. **Dong Wang**, Yuping Zhao, Jianwei Wang, Title of Disclosure: An Anti-Collision Protocol in Multi-Center Dynamic Distributed Wireless Network, Publication Number: CN101056230, Peking University, 2007.
2. Yuping Zhao, Jianwei Wang, **Dong Wang**, Title of Disclosure: A MAC Scheme Based on Time and Code Two Dimension Detection , Publication Number: 200610089060.0, Peking University, 2007
3. Zimin Liu, Yan Luo, **Dong Wang**, Yuping Zhao, Title of Disclosure: A Unicast Scheme to Transmit Voice over WLAN, Publicaiton Number: CN10108188, Peking University, 2007
4. Jianwei Wang, Yuping Zhao, **Dong Wang**, Title of Disclosure: An Anti-Collision Reading Method in RFID System, Publication Number: CN101004780, Peking University, 2007
5. Pei Liu, Xinwei Zhang, **Dong Wang**, Yuping Zhao, Title of Disclosure : The Reading Method, System and Transceiver Device of RFID Signal, Publication Number: CN101231684, Huawei Company, 2008

TEACHING AND MENTORING EXPERIENCES

- **Co-Instructor** Fall 2013
  Department of Computer Science, University of Illinois at Urbana-Champaign
  Course: Real-Time Systems
  - Developed and gave lectures in a senior undergraduate/junior gradudate level course
  - Instructed students in labs on experiments with iRobot and Android phones
- **Guest Lecturer** Spring 2013
  Department of Computer Science, University of Illinois at Urbana-Champaign
  Course: Distributed Social Sensing and Cyber Physical Systems
  - Developed and gave lectures on mobility issues of cyber-physical systems in an advanced graduate-level course
- **Mentor** Spring 2013, Fall 2012
  Department of Computer Science, University of Illinois at Urbana-Champaign

- Mentor of one Ph.D student and two master students in the projects focusing on *On-line Social Media as "Sensor Networks"*

- **Teaching Assistant and Experimental Advisor** Fall 2006
  Department of Electronics, Peking University Course: Modern Communication Systems
  - Designed course material and term projects, gave lectures and lab instructions, led weekly discussion sessions, designed and taught in-class tutorials

- **Co-Instructor and Teaching Assistant** Spring 2006
  Department of Electronics, Peking University Course: Wireless and Mobile Data Networks
  - Gave lectures, co-designed the course projects, guided the weekly technical discussion and helped project groups to prepare their final presentations in an advanced course for graduate students

- **Mentor and Experimental Advisor** Fall 2005 to Spring 2007
  Department of Electronics, Peking University
  - Mentor of one master student and two undergraduate students and advised them to conduct experiments in the project of *Multi-Dimensional MAC Design for RFID Systems*

- **Teaching Assistant** Fall 2005
  Department of Electronics, Peking University Course: Digital Communication System
  - Designed the course assignments, instructed in the weekly programming lab, used various assessment tools to evaluate the performance of students in a medium-level course of more than 100 students

PROPOSAL EXPERIENCE

- My doctoral dissertation research project originated from the research proposal I wrote for my prelim exam, which became a project funded by Army Research Lab (ARL)
- Participated in preparing the 4th year proposal of a five-year project in NS CTA funded by Army Research Lab, 2012
- Participated in preparing the 3rd year proposal of a five-year project in NS CTA funded by Army Research Lab, 2011
- Participated in preparing the proposals for the project funded by the National 863 High-tech Foundation of China, 2006

PROFESSIONAL SERVICE

- Reviewer of IEEE Communications Magazine
- Reviewer of IEEE Communications Magazine
- Reviewer of ACM Transactions on Sensor Networks (ToSN)
- Reviewer of Transactions on Autonomous and Adaptive Systems (TAAS)
- Reviewer of Pervasive and Mobile Computing (PMC)
- Reviewer of KSII Transactions on Internet and Information Systems
- Reviewer of Security and Communication Networks
- Reviewer of INFOCOM 2014

- TPC member of 2nd IEEE International Conference on Big Data Science and Engineering (BDSE 2013), IEEE CloudCom 2013, International Conference on Computing, Networking and Communications (ICNC 2014)

INTERNSHIP

Research Intern Oct 2012 - Dec. 2012
Interdisciplinary Research Center, *Cross-genre Network Information Analysis Systems*, Raytheon BBN Technologies, Cambridge, MA, with Dr. Alice Leung

MEMBERSHIP AND ACTIVITIES

- Member of ACM and IEEE
- Mentor of Interlink Program at UIUC: Sept. 2010-Aug. 2011
- Academic Chair, IEEE Student Branch, Peking University: March 2005-July 2007
- Exchange Student, Stanford University and Peking University Exchange Program: March 2006-July 2006

REFERENCES

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