

# He Wang

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- APPOINTMENTS**      **Purdue University,**      Aug. 2016 - present  
Assistant Professor, Department of Computer Science
- EDUCATION**      **University of Illinois at Urbana-Champaign, USA**  
Ph.D., Electrical and Computer Engineering, *Aug. 2016*
- Duke University, USA**  
M.S., Electrical and Computer Engineering, *Sept. 2013*
- Tsinghua University, China**  
B.E., Electronic Engineering, *Jul. 2011*
- INDUSTRY**      **Microsoft Research, Redmond**      May 2013 - Aug. 2013  
**EXPERIENCE**      *Research Intern*  
*Conducting research on a sensor-based user authentication system. In EWSN 2015.*
- Microsoft Research, Redmond**      May 2012 - Jul. 2012  
*Research Intern*  
*Conducting research on a system to characterize local business ambience. In WWW 2014.*
- Microsoft Research, Asia**      Jul. 2010 - Jan. 2011  
*Research Intern*  
*Conducting research on energy-efficient outdoor localization. In IEEE INFOCOM 2013.*
- Microsoft Research, Asia**      Jan. 2010 - Apr. 2010  
*Research Intern*  
*Conducting research on energy-efficient and high accuracy location-based reminder.*
- MEDIA**      **PHADE:** Sohu, TechCrunch, Gizmodo, NetEase, Toutiao, Phoenix New Media, EurekAlert!, ...  
**COVERAGE**      **MoLe:** Daily Mail, Sina News, Yahoo News, The Times of India, News.com.au, Bangkok Post, ...  
                         **Bing Now 2.0:** MIT Technology Review  
                         **InSight:** LA Times, CNET, San Francisco Chronicle, NewScientist, Sina, The Verge, Engadget, ...  
                         **UnLoc:** Scientific American, The Verge, Gizmag, TG Daily, News Observer, PhysOrg, ...
- PUBLICATIONS**      S. Cao, H. Wang  
                         Enabling Public Cameras to Talk to the Public  
                         *IMWUT 2018 (UbiComp 2018)*
- H. Zhang, N. Theera-Ampornpant, H. Wang, S. Bagchi, R. K. Panta  
                         Sense-Aid: A Framework for Enabling Network as a Service for Participatory Sensing  
                         *ACM/IFIP/USENIX Middleware 2017 (acceptance ratio - 23%)*
- H. Zhang, S. Bagchi, H. Wang  
                         Integrity of Data in a Mobile Crowdsensing Campaign: A Case Study  
                         *ACM CrowdSenSys 2017*
- S. Shen, H. Wang, R. Roy Choudhury  
                         I am a Smartwatch and I can Track my User's Arm  
                         *ACM MobiSys 2016 (acceptance ratio - 16%)*

- H. Abdelnaser, R. Samir, A. Elgohary, M. Alzantot, H. Wang, S. Sen, R. Roy Choudhury, M. Youssef  
SemanticSLAM: Using Environment Landmarks for Unsupervised Indoor Localization  
*IEEE Transactions on Mobile Computing 2016*
- H. Wang, T. T. Lai, R. Roy Choudhury  
MoLe: Motion Leaks through Smartwatch Sensors  
*ACM MobiCom 2015 (acceptance ratio - 18%)*
- H. Wang, X. Bao, R. Roy Choudhury, S. Nelakuditi  
Visually Fingerprinting Humans without Face Recognition  
*ACM MobiSys 2015 (acceptance ratio - 13%)*
- H. Wang, D. Lymberopoulos, J. Liu  
Sensor-based User Authentication  
*EWSN 2015 (acceptance ratio - 21%)*
- N. Roy, H. Wang, R. Roy Choudhury  
I am a Smartphone and I can Tell my User's Walking Direction  
*ACM MobiSys 2014 (acceptance ratio - 14%)*
- H. Wang, D. Lymberopoulos, J. Liu  
Local Business Ambience Characterization Through Mobile Audio Sensing  
*WWW 2014 (acceptance ratio - 13%)*
- H. Wang, X. Bao, R. Roy Choudhury, S. Nelakuditi  
InSight: Recognizing Humans without Face Recognition  
*ACM HotMobile 2013 (acceptance ratio - 31%)*
- H. Wang, Z. Wang, G. Shen, F. Li, S. Han, F. Zhao  
WheelLoc: Enabling Continuous Location Service on Mobile Phone for Outdoor Scenarios  
*IEEE INFOCOM 2013 (acceptance ratio - 17%)*
- H. Wang, S. Sen, A. Elgohary, M. Farid, M. Youssef, R. Roy Choudhury  
No Need to War-Drive: Unsupervised Indoor Localization  
*ACM MobiSys 2012 (acceptance ratio - 18%)*

**POSTERS AND  
DEMOS**

- S. Cao, H. Farrukh, H. Wang  
Video: Enabling Public Cameras to Talk to the Public  
*ACM MobiSys 2018*
- H. Wang, S. Sen, A. Mariakakis, A. Elgohary, M. Farid, M. Youssef, R. Roy Choudhury  
Video: Unsupervised Indoor Localization (UnLoc): Beyond the Prototype  
*ACM MobiSys 2014*
- H. Wang, X. Bao, R. Roy Choudhury, S. Nelakuditi  
Demo: Recognizing Humans without Face Recognition  
*ACM MobiSys 2014*
- N. Roy, H. Wang, R. Roy Choudhury  
Demo: I am a Smartphone and I can Tell my User's Walking Direction  
*ACM MobiSys 2014*
- H. Wang, S. Sen, A. Mariakakis, A. Elgohary, M. Farid, M. Youssef, R. Roy Choudhury  
Demo: Unsupervised Indoor Localization  
*ACM MobiSys 2012*

**PATENTS AND  
TECHNOLOGY  
TRANSFER**

- Licensed "Unsupervised Indoor Localization (UnLoc)" to Samsung  
Communication System Architecture and Method of Processing Data Therein  
US 15971759, pending, co-authored with Purdue students
- User-Authentication Gestures  
US 9223955 B2, granted, co-authored with researchers from Microsoft Research, Redmond

Unsupervised Indoor Localization and Heading Direction Estimation  
US 20150281910 A1, pending, co-authored with faculty and students from Duke and E-JUST

Accumulation of Real-time Crowd Sourced Data for Inferring Metadata about Entities  
US 20140201276 A1, pending, co-authored with researchers from Microsoft Research, Redmond

**TEACHING** CS 422000: Computer Networks, Spring 2018.  
CS 53600: Data Communication and Computer Networks, Fall 2017, Spring 2017.  
CS 59000-MSC: Mobile Sensing, Computing, and Applications, Fall 2016.

**PROFESSIONAL  
ACTIVITIES** **Keynotes:**  
MobiSys PhD Forum, 2017

**TPC member:**  
MMSys 2018  
FG 2018  
MobiCom 2017  
IEEE SECON 2017  
NetGames 2017  
MobiVR 2017  
SCIE 2017

**ERC member:**  
MobiSys 2017

**Session chair:**  
MobiCom 2017

**Reviewer:**  
ACM IMWUT  
CHI 2017  
UbiComp 2016  
IEEE Transactions on Mobile Computing  
IEEE/ACM Transactions on Networking  
ACM Transactions on Sensor Networks  
ACM Transactions on Database Systems  
IEEE Internet of Things  
IEEE Pervasive Computing  
IEEE Transactions on Parallel and Distributed Systems  
IEEE Transactions on Emerging Topics in Computing  
IEEE Transactions on Industrial Informatics  
IEEE Transactions on Human-Machine Systems  
IEEE International Conference on Communications (ICC) 2013  
IEEE Journal on Selected Areas in Communications  
Sensors  
Journal of Ambient Intelligence and Humanized Computing  
Computers in Biology and Medicine