

Zhao Tian

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Academic Background

- **Dartmouth College** Hanover, New Hampshire, United States
Ph.D. in Computer Science Sept. 2014 – Jun. 2019 (expected)
 - working under the supervision of Prof. Xia Zhou at DartNets (Dartmouth Networking and Ubiquitous Systems) Laboratory
 - wireless networking and mobile system, specifically in visible light communication/sensing and spectrum monitoring
- **Peking University** Beijing, China
Bachelor of Science in Computer Science Sept. 2009 – Jul. 2013
 - core courses: Compiler, Operating system, Architecture, Computer network; Linear algebra, Calculus, Graph theory, Probability and statistics, Stochastic process; Data structure, Algorithm design & analysis; Digital logic
 - worked with Prof. Tao Wang and Prof. Guojie Luo at Center for Energy-Efficient Computing and Applications (CECA) of Peking University since sophomore, on reconfigurable computing, specifically FPGA architecture and tool chain
 - **Bachelor of Arts (minor) in Economics**
- **UCLA (University of California, Los Angeles)** Los Angeles, California, United States
Research-Exchange Student in Department of Computer Science Sept. 2012 – Jan. 2013
 - sponsored by the Joint Research Institute in Science and Engineering of Peking University and UCLA
 - worked on reconfigurable computing with Prof. Jason Cong and Dr. Kalliopi Tsota at UCLA VLSI CAD Laboratory (now VLSI Architecture, Synthesis, and Technology (VAST) Laboratory)

Appointments

- **Google** Kirkland, United States
PhD Software Engineering Intern Jun. 2018 – Sept. 2018
 - worked on improving a networking algorithm within Android in the Duo team
- **Bell Labs, Nokia** Cambridge, United Kingdom
Research Intern May 2017 – Aug. 2017
 - worked under the supervision of Dr. Fahim Kawsar. Wi-Fi sensing using channel state information (CSI). devised a multi-node CSI infrastructure and engineered features for occupancy detection.
- **University of Cambridge** Cambridge, United Kingdom
Visiting Researcher Oct. 2016 – Dec. 2016
 - collaborated with Prof. Cecilia Mascolo. designed and implemented an infrared badge to sense interpersonal interactions. Our wearable device can sense the relative angles, in addition to distances, between people. deployed the devices in user studies to investigate the social implication of users' non-verbal behavior.

Publications

- **Augmenting Indoor Inertial Tracking with Polarized Light**
Z. Tian[†], Y.-L. Wei[†], W.-N. Chang, X. Xiong, C. Zheng, H.-M. Tsai, K. Lin, X. Zhou
MobiSys 2018 († co-primary authors)
- **Measuring Interaction Proxemics with Wearable Light Tags**
A. Montanari[†], Z. Tian[†], E. Francu, B. Lucas, B. Jones, X. Zhou, and C. Mascolo
Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), vol. 2, no. 1, 2018 (to be presented at UbiComp 2018) († co-primary authors)
- **Position: Augmenting Inertial Tracking with Light**
Z. Tian[†], Y.-L. Wei[†], X. Xiong[†], W.-N. Chang, H.-M. Tsai, K. Lin, C. Zheng, X. Zhou
4th ACM Workshop on Visible Light Communication Systems (VLCS 2017) († co-primary authors)
- **The DarkLight Rises: Visible Light Communication in the Dark**
Z. Tian, K. Wright, and X. Zhou
MobiCom'16 **Best Video Award**

- **Lighting Up the Internet of Things with DarkVLC**
Z. Tian, K. Wright, and X. Zhou
Proceedings of 17th International Workshop on Mobile Computing Systems and Applications (HotMobile'16)
- **Human Sensing Using Visible Light Communication**
T. Li, C. An, Z. Tian, A. Campbell, and X. Zhou
MobiCom'15 **Best Video Award**
- **Visible Light Knows Who You Are**
C. An, T. Li, Z. Tian, A. Campbell, and X. Zhou
Proceedings of 2nd ACM Workshop on Visible Light Communication systems (VLCS'15)

Honors & Awards

- **MobiSys Travel Grant** *NSF, 2018*
- **HotMobile Travel Grant** *NSF, 2016*
- **Second Place in ACM Student Research Competition** *ACM MobiCom, 2015*
- **Neukom Travel Grant** *Neukom Institute, 2015*
- **International Scholarship for Outstanding Undergraduates** *China Scholarship Council, 2012*
 - sponsored by Ministry of Education, China to do research overseas: stipend, travel expense, and insurance
 - the only winner from School of EECS; 13 from Peking University; 289 nationwide (all disciplines included)
- **May Fourth Scholarship** *Peking University, 2012*

Professional Activities

- **Technical Program Committee**
ACM S³ 2017
- **Reviewer**
UbiComp 2017, 2018

Teaching Assistant Experience

- **COSC50: Software Design and Implementation** *Winter and Spring 2015, Dartmouth*
– held office hours, led lab sessions, graded labs and course projects, and shepherded course projects
- **COSC 30: Discrete Mathematics in Computer Science** *Fall 2014, Dartmouth*
– held office hours, graded and wrote solutions for assignments and exams, and explained the exams

Technical Skills

- **Programming Language** **Proficient:** C/C++, Java, Python, MATLAB, Shell script;
- **Hardware Description Language** Verilog
- **System & Tools** GNU/Linux, Make, Vim, gprof, Git, L^AT_EX, gnuplot, GNU Radio
- **FPGA Platform** Xilinx Vivado, Xilinx Vivado HLS