

Tianxing Li

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RESEARCH INTERESTS

Core: Sensing, Mobile Computing, Wireless Communication, Embedded Systems

Application: Internet of Things, Gesture Sensing, Eye Tracking, Low-power Sensing

EDUCATION

July. 2014- Present	DARTMOUTH COLLEGE <i>Ph.D., Computer Science</i> Advisor: Prof. Xia Zhou	Hanover, NH
Sept. 2012- Jun. 2014	DARTMOUTH COLLEGE <i>Master, Computer Science</i> Overall GPA: 3.6/4.0	Hanover, NH
Oct. 2009-Dec. 2011	AUSTRALIAN NATIONAL UNIVERSITY <i>Bachelor, Electronics and Telecommunications Engineering(Major), Photonics (Minor)</i> Overall GPA: 3.3/4.0 Major GPA: 3.4/4.0, Ranking: 19/213	ACT, Australia
Sept. 2007-Sept. 2009	BEIJING INSTITUTE OF TECHNOLOGY <i>Bachelor, Electronics and Telecommunications Engineering</i> Overall GPA: 3.6/4.0, Ranking: 9/66	Beijing, China

HONORS & AWARDS

- CACM Research Highlights Award 2018
 - SIGMOBILE Research Highlights Award 2018
 - Best Paper Nominee Award at SenSys 2017
 - SIGMOBILE Research Highlights Award 2016
 - Best Video Award at MobiCom 2015
 - 3rd place of Neukom Prize for Outstanding Graduate Research at Dartmouth College
 - Best Demo Award at MobiSys 2015
 - Bronze Medal of Student Research Competition at MobiCom 2014
 - Best Paper Award at VLCS 2014
 - Best Paper Nominee Award at UbiComp 2014
 - International Student Scholarship (Top 20 out of 213), Australian National University, 2010 and 2011
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CONFERENCE AND WORKSHOP PAPERS

Battery-Free Eye Tracker on Glasses

Tianxing Li and Xia Zhou

ACM MobiCom 2018

Self-Powered Gesture Recognition with Ambient Light

Yichen Li*, **Tianxing Li***, Ruchir A. Patel, Xing-Dong Yang, and Xia Zhou (* co-primary)

ACM UIST 2018

Ultra-Low Power Gaze Tracking for Virtual Reality

Tianxing Li, Qiang Liu, and Xia Zhou

ACM SenSys 2017

Reconstructing Hand Poses Using Visible Light

Tianxing Li*, Xi Xiong*, Yifei Xie, George Hito, Xing-Dong Yang, and Xia Zhou (* co-primary)

ACM UbiComp 2017

Practical Human Sensing in the Light

Tianxing Li, Qiang Liu, and Xia Zhou

ACM MobiSys 2016

Human Sensing Using Visible Light Communication

Tianxing Li, Chuankai An, Zhao Tian, Andrew T. Campbell, and Xia Zhou
ACM MobiCom 2015

Visible Light Knows Who You Are

Chuankai An, **Tianxing Li**, Zhao Tian, Andrew T. Campbell, and Xia Zhou
ACM VLCS 2015

Low-Power Pervasive Wi-Fi Connectivity Using WiScan

Tianxing Li, Chuankai An, Ranveer Chandra, Andrew T. Campbell, and Xia Zhou
ACM UbiComp 2015

Real-time screen-camera communication behind any scene

Tianxing Li, Chuankai An, Xinran Xiao, Andrew T. Campbell, and Xia Zhou
ACM MobiSys 2015

HiLight: Hiding Bits in Pixel Translucency Changes

Tianxing Li, Chuankai An, Andrew Campbell, and Xia Zhou
ACM VLCS 2014

StudentLife: Assessing Behavioral Trends, Mental Well-being and Academic Performance of College Students using Smartphones

Rui Wang, Fanglin Chen, Zhenyu Chen, **Tianxing Li**, Gabriella Harari, Stefanie Tignor, Xia Zhou, Dror Ben-Zeev, and Andrew T. Campbell
ACM UbiComp 2014

Unobtrusive sleep monitoring using smartphones

Zhenyu Chen, Mu Lin, Fanglin Chen, Lane, N.D., Cardone, G., Rui Wang, **Tianxing Li**, Yiqiang Chen, Choudhury, T. Campbell, A.T.
Pervasive Health 2013

Dual deblurring leveraged by image matching

Fang Wang, **Tianxing Li**, Yi Li
IEEE ICIP 2013

JOURNALS

Practical Human Sensing in the Light

Tianxing Li, Qiang Liu, and Xia Zhou
ACM GetMobile 20 (4): 28-33 (2016)

POSTER AND DEMOS

Demo: Ultra-Low Power Gaze Tracking for Virtual Reality

Tianxing Li, Emmanuel S. Akosah, Qiang Liu, and Xia Zhou,
ACM SenSys 2017

Demo: Real-Time Screen-Camera Communication Behind Any Scene

Tianxing Li, Chuankai An, Xinran Xiao, Andrew T. Campbell, and Xia Zhou,
ACM MobiSys 2015

Poster: HiLight: Hiding Bits In Pixel Translucency Changes

Tianxing Li, Chuankai An, Andrew T. Campbell, and Xia Zhou,
ACM MobiCom 2014

INVITED TALKS

S3 2018 (in conjunction with ACM MobiCom 2018)

Talk: Battery-free Eye Trackers
New Delhi, India

SCIE 2017 (in conjunction with IEEE SECON 2017)

Talk: Human Sensing Using Visible Light
San Diego, CA, USA

ACTIVITIES

Co-chairs

- ACM S3 2017 workshop (in conjunction with ACM MobiCom 2017)
- ACM Ph.D. Forum 2017 workshop (in conjunction with ACM MobiSys 2017)

TPC members

- CRYBLOCK 2019 workshop (in conjunction with IEEE INFOCOM 2019)
- CRYBLOCK 2018 workshop (in conjunction with ACM MobiSys 2018)
- ACM Ph.D. Forum 2018 workshop (in conjunction with ACM MobiSys 2018)
- ACM S3 2016 workshop (in conjunction with ACM MobiCom 2016)
- ACM Ph.D. Forum 2016 workshop (in conjunction with ACM MobiSys 2016)

Reviewers

- CHI 2018, 2019
- IMWUT 2018, 2019
- IEEE Wireless Communication Letters
- IEEE Transactions on Mobile Computing
- Computers
- UbiComp 2015, 2016
- Mobile Information System

RESEARCH EXPERIENCES

- Mar. 2011- Mar.2012 **NATIONAL ICT CENTRE & AUSTRALIA NATIONAL UNIVERSITY** ACT, Australia
Dual deblurring leveraged by image matching, Computer Vision Group
 Advisor: Dr. Yi Li
- Nov. 2010- Mar.2011 **NATIONAL ICT CENTRE & AUSTRALIA NATIONAL UNIVERSITY** ACT, Australia
Kernel-based Tracking from a Probabilistic Viewpoint, Computer Vision Group
 Advisor: Dr. Antonio Robles-Kelly

TEACHING EXPERIENCES

Guest Lecturer

Course: Operating System (CS58), Fall 2018, Dartmouth College

Teaching Assistant

Course: Computer Network (CS60), Spring 2014, Dartmouth College

Teaching Assistant

Course: Software Design and Implementation (CS50), Winer 2014, Dartmouth College

Teaching Assistant

Course: Introduction to Bioinformatics (CS75), Fall 2014, Dartmouth College

Teaching Assistant

Course: Smartphone programming (CS65), Spring 2013, Dartmouth College

Tutor

Course: Digital Systems and Microprocessors (ENGN3213), Fall 2011, Australian National University

REFERENCES

Prof. Xia Zhou (Advisor)

Computer Science Department, Dartmouth College

Web: <https://home.cs.dartmouth.edu/~xia/>

Email: xia@cs.dartmouth.edu

Prof. Andrew T. Campbell

Computer Science Department, Dartmouth College

Web: <https://www.cs.dartmouth.edu/~campbell/>

Email: andrew.t.p.campbell@gmail.com

Prof. Xing-Dong Yang

Computer Science Department, Dartmouth College

Web: <https://www.cs.dartmouth.edu/~xingdong/>

Email: Xing-Dong.Yang@dartmouth.edu

Prof. Deepak Ganesan

Computer Science Department, UMASS Amherst

Web: <https://people.cs.umass.edu/~dganesan/>

Email: deganesan@cs.umass.edu