

# XIAOFAN FRED JIANG

TEL: +1 (212) 853-0687 • E: JIANG@EE.COLUMBIA.EDU • URL: HTTP://FREDJIANG.COM  
550 W. 120TH STREET, RM 1008, NEW YORK, NY 10027, USA

## EDUCATION

**University of California, Berkeley** 8/2005-9/2010

- Ph.D. in Computer Science, completed 9/2010
- Dissertation topic: "High-Fidelity Wireless Building Energy Monitoring Architecture"
- M.S. in Electrical Engineering and Computer Science, completed in 12/2007
- Ph.D. Advisor: David E. Culler

**University of California, Berkeley** 9/2001-12/2004

- B.Sc. in Electrical Engineering and Computer Science, Summa Cum Laude
- Minor in Business Administration, Haas School of Business
- Cumulative GPA 3.8, technical GPA 3.9

## WORK EXPERIENCES

**Columbia University in the City of New York, New York** 7/2015-Present

*Assistant Professor (Tenure-track)*

- Teaching undergraduate and graduate courses in the School of Engineering (SEAS).
- Director of *Intelligent and Connected Systems Lab*, working on research in the areas of smart and sustainable buildings, mobile and wearable systems, and connected health & fitness.

*Co-Chair of Smart Cities Center in the Data Science Institute (DSI)*

- Tackling old and new problems in cities; improving the quality of urban living.

**Air Scientific Inc., Beijing** 7/2014-3/2015

*Co-Founder and CTO*

- Air Scientific Inc. is a startup incubated by Intel IoT Joint Labs along with angels and strategic investors to commercialize the air-quality monitoring and analytics project.
- Manages the overall operation of a 15-person startup, including research, manufacturing, marketing, and operations.
- First high-density deployment of IoT air-quality monitors in collaboration with the Beijing municipal government to provide data analysis, visualization, and pollution source tracking.

**Intel Labs China, Beijing** 9/2012-7/2014

*Director, Analytics and IoT Research Laboratory*

- Manages the Analytics and IoT Research Lab (AIR Lab), with projects in energy and environment, smart manufacturing, wearable and context-aware systems

*Chief Architect, China Intel IoT Joint Labs*

- Principle Investigator for several research projects, including PAM, VeriCloud, QiLoc, and SmartRetail (detailed descriptions in the PROJECTS section)
- PAM project is successfully incubated into a startup – Air Scientific Inc. by Intel IoT Labs and Chinese Academy of Sciences

- High-profile media exposures including China Central Television (CCTV), People's Daily, and Business Times.

**Microsoft Research Asia, Beijing**

10/2010-9/2012

*Researcher*

- Accurate indoor location and geo-fencing based on magnetic-induction
- Human-building-computer interaction
- Wireless and mobile systems
- Real-time occupancy detection and energy tracking
- As team leader, 1 U.S. patent granted, 2 under submission

**Google, Palo Alto CA**

6/2007-8/2007

*Engineering Intern*

- Designed scheduling and data exchange protocols of a novel CDMA/TDMA hybrid MAC, optimized for a next generation MIMO-based ultra-wideband PHY, targeted at "C" and "whitespace" TV bands.
- As team member, 4 U.S. patents granted

**Arch Rock, San Francisco CA**

1/2006-5/2006

*Technical Consulting*

- Worked on the design and implementation of a low power 802.15.4 to Ethernet bridge node. Designed a prototype and wrote the initial firmware in TinyOS.

**Intel Corporation, Santa Clara CA**

2/2005-7/2005

*Component Design Engineer*

- Validation of Baseboard Management Controller (BMC) chip using SpecmanElite and Verilog. Constructed infrastructure to validate interrupts to the embedded ARC microcontroller from internal and auxiliary sources. Validated watchdog, SerialIRQ, GPIO, and several other components.

**Xilinx, San Jose CA**

1/2004-7/2004

*Intern Engineer*

- Worked on the Gigabit System Reference Design (GSRD) project for high bandwidth systems. Designed part of the Communication Direct Memory Access Controller (CDMAC). Added coalescing interrupts, timers, support for all byte lengths and byte offsets in memory addressing.
- Designed a system to perform 3:2 video pull-down in hardware using ML300 board. Allowed video to be displayed in a moving window with animated background, using virtually no CPU time. It was used to demonstrate bandwidth and CPU utilizing of GSRD.

## RESEARCH PROJECTS

*My research interest lies in the intersection of cyber-physical systems and data analytics, with focus on intelligent and sustainable buildings, mobile and wearable systems, safety-aware smart cities, environmental monitoring and control, and connected health & fitness.*

- My research projects at Columbia University can be found at:  
<http://icsl.ee.columbia.edu/projects/>
- Projects while at UC Berkeley, Microsoft Research Asia, and Intel Labs China:  
<http://fredjiang.com/projects/>

## AWARDS AND HONORS

- MIT Technology Review 35 Innovators Under 35 Semi-Finalist. 2017
- National Science Foundation (NSF) Graduate Fellowship (GRFP). 8/2006 – 8/2009
- Vodafone-US Foundation Fellows Initiative scholarship for research in wireless communications. 2004
- Best Paper Award, IEEE IPSN '05
- Best Demo Award, ACM SenSys '11
- Best Demo – Runner Up, ACM SenSys '16
- Best Poster Award, ACM BuildSys '16
- Best Paper Runner Up Award, ACM BuildSys '17
- Best Demo Award, ACM/IEEE IoTDI '18

## PATENTS

- US Patent #US 8,396,086 B1: "Scalable Association Scheme for TV White-space MIMO Wireless System". Carroll Philip Gossett, Yuan Yuan, Kevin C. Yu, Xiaofan Jiang, Michial Allen Gunter, Emmanouil Koukoumidise. Google Inc.
- US Patent #US 8,565,138 B1: "Random Shuffling Mechanism for MIMO Wireless System". Yuan Yuan, Kevin C. Yu, Emmanouil Koukoumidise, Xiaofan Jiang, Michial Allen Gunter, Carroll Philip Gossett. Google Inc.
- US Patent #US 8,699,411 B1: "Dynamic TDMA System for TV White Space MIMO Wireless". Carroll Philip Gossett, Yuan Yuan, Kevin C. Yu, Emmanouil Koukoumidise, Xiaofan Jiang, Michial Allen Gunter. Google Inc.
- US Patent #US 8,559,455 B1: "Dynamic Scheduling Scheme for TV White-space MIMO Wireless System". Yuan Yuan, Kevin C. Yu, Carroll Philip Gossett, Michial Allen Gunter, Xiaofan Jiang, David James Carmichael. Google Inc.
- US Patent #US 8730048: "Earphone-based game controller and health monitor". Guo Bin Shen, Xiaofan Jiang. Microsoft.
- US Patent Application, Pub No. US 2013/0073681 A1: "Creating Interactive Zones", Xiaofan Jiang, Chieh-Jan Mike Liang, Jeff Hsu, Caiquan Liu, Jie Liu, Feng Zhao. Microsoft.

- Provisional Patent: "Polarity-Coincidence Correlation Adaptive Time-Delay Estimation - PCC-ATDE". Peter Kinget, Xiaofan Jiang, Daniel de Godoy Peixoto. Columbia University.
- Provisional Patent: "Novel conductive thread-based wearable sensor for perspiration level sensing". Xiaofan Jiang, Ji Jia. Columbia University.

#### TEACHING AND SELECTED TALKS

- **Columbia University**, New York 2015 - Present  
Created Columbia's first undergraduate course on Internet-of-Things (IoT). Now Part of Computer Engineering Core.  
Lectures on "Enabling Technologies for Data Science and Analytics" on edX.  
Created new seminar on Cyber-Physical Systems (CPS).
- **Singapore Nanyang Technological University**, Singapore 2018  
**Chinese University of Hong Kong**, Hong Kong 2018  
**Hong Kong Polytechnic University**, Hong Kong 2018  
Seminar: Intelligent and Connected Systems for Sensible Urban Living
- **Carnegie Mellon University**, Pittsburg 2015  
Seminar: Bringing Together Internet-of-Things with Physical Analytics
- **University of Michigan at Ann Arbor**, Ann Arbor 2014  
Invited Talk: Air-Quality Monitoring and Data Analytics
- **Intel Developers Forum (IDF)**, Shenzhen 2014  
Talk: End-to-end Internet of Things Solutions on Intel® Architecture
- **First Workshop on Internet of Things Applications**, Beijing 2012  
Keynote: Intelligent Modules for Building Internet-of-Things
- **Intl. Conference on Human Probes and Smartphone Sensing**, Chiang Mai, 2011  
Keynote: People-centric Sensing – from Smartphones to Smartplaces
- **National Taiwan University**, Taipei 2011  
Lecture: Bridging the Gap between Humans and the Physical World – A Step Toward Reducing Energy Consumption and Increasing Comfort
- **CCF Advanced Disciplines Lectures**, Beijing 2011  
Lecture: Internet of Humans and Things: Connecting Humans to the Physical World with Virtual Zones
- **Emerging CPS Applications Workshop**, Stockholm, 2010  
Rethinking the Energy Infrastructure from a Cyber-Physical Perspective
- **Lawrence Berkeley National Laboratory**, Berkeley 2008  
Expediting Home Energy Conservation through Innovative Marketing and the Web 2.0 Community
- **University of California, Berkeley**, Berkeley, California  
Graduate Student Instructor for "CS61CL: Machine Structures" (Fall Semester 2008), taught by

Professor David Culler, Computer Science Division

- **University of California, Berkeley**, Berkeley, California  
Guest Lecturer for "EECS152: Computer Architecture and Engineering"  
Title: Virtualization (topics include VMM, memory sharing, VTx, Xen VM, VMware ESX)

#### PROFESSIONAL SERVICES

- Steering Committee Chair, ACM BuildSys
- TPC co-Chair, ACM BuildSys '14, IoT Expo '16, IEEE SCIE '17, ICCCN '17 HoT
- Guest Editor, IEEE Pervasive Computing SI on IoT Communications, 2018
- Guest Editor, ACM Transactions on Sensor Networks SI on Smart and Efficient Built Environments, 2018
- Co-Chair, PhD Forum/Doctoral Colloquium at SenSys 2017
- Publication Chair, ACM SenSys '16, ACM BuildSys '16
- Publicity Chair, ACM SenSys '12, ACM EWSN '16
- Demo Chair, ACM BuildSys '11, ACM/IEEE IPSN '12, ACM/IEEE IPSN '16, ACM SenSys '16
- Web Chair, ACM SenSys '10, '11
- Poster Chair, ACM BuildSys '11
  
- TPC Member:
  - SenSys '13, '14, '15, '16, '17, '18
  - MobiSys '14
  - Physical Analytics '14
  - MobiCASE '14
  - ASPLOS '14 (external reviewer)
  - RTAS '13
  - DCOSS '13, '14, '15, '16
  - E-Energy '15
  - EWSN '11, '13
  - BuildSys 10, '12, '13, '17, '18
  - HotPower '12
  - IPSN 11, '12, '18
  - IoTDI '17, '18
  - HotMobile '16

#### MEDIA AND NEWS

- 2018. Featured in the March 2018 issue of IEEE Signal Processing Magazine. "[Signal Processing Supports a New Wave of Audio Research](#)".
- 2017. Featured in EurekAlert! Science News (operated by AAAS). "[Data Science Institute professor leads team to design smart headphones](#)".
- 2016. Featured in Brazilian newspaper O Globo. "[Xiaofan Jiang, electrical engineer: 'Rich are extravagant in consumption because it is cheap'](#)".
- 2016. Interview with O'Reilly on ambient computing, published in the O'Reilly Report "[Ambient Computing: How Invisible Hardware, Self-Starting Apps, and Nonstop Surveillance Reshapes Our Public and Private Lives](#)".
- 2016. Interview with O'Reilly on "Impact of IoT on existing networks", published in the O'Reilly

Report "[Are Your Networks Ready for the IoT?](#)"

- 2015. Featured in Columbia Engineering Magazine: [Fred Jiang | Building Systems to Collect, Exchange, and Analyze Data](#)
- 2013-2014. "PAM: Pervasive Air-Quality Monitoring" project was featured in: [CCTV](#), [People's Daily](#), [Nikkei Technology](#), [Chinese Computer World](#), [DragonTV](#), [Nanfang Weekend](#), [Business Times](#)
- 2012-2013. "SEPTIMU / MusicalHeart / LifeX" project was featured in: [The Economist](#), [New Scientist](#), [CNET](#), [Gizmodo](#)

#### PROFESSIONAL SOCIETY MEMBERSHIP

- Association for Computing Machinery (ACM)
- Institute of Electrical and Electronics Engineers (IEEE)

#### PUBLICATIONS (IN CHRONOLOGICAL ORDER)

- Jiang, X., J. Polastre and D. Culler (2005). Perpetual environmentally powered sensor networks. Proceedings of the 4th international symposium on Information processing in sensor networks. Los Angeles, California, IEEE Press: 65.
- Whitehouse, K., C. Karlof, A. Woo, F. Jiang and D. Culler (2005). The effects of ranging noise on multihop localization: an empirical study. Proceedings of the 4th international symposium on Information processing in sensor networks, IEEE Press.
- Whitehouse, K., A. Woo, F. Jiang, J. Polastre and D. Culler (2005). Exploiting the capture effect for collision detection and recovery. Proceedings of the 2nd IEEE workshop on Embedded Networked Sensors: 45-52.
- Jiang, X., P. Dutta, D. Culler and I. Stoica (2007). Micro power meter for energy monitoring of wireless sensor networks at scale. Proceedings of the 6th international conference on Information processing in sensor networks. Cambridge, Massachusetts, USA, ACM: 186-195.
- Jiang, X., J. Taneja, J. Ortiz, A. Tavakoli, P. Dutta, J. Jeong, D. Culler, P. Levis and S. Shenker (2007). "An architecture for energy management in wireless sensor networks." SIGBED Rev. 4(3): 31-36.
- Dutta, P., J. Taneja, J. Jeong, X. Jiang and D. Culler (2008). A building block approach to sensor network systems. Proceedings of the 6th ACM conference on Embedded network sensor systems. Raleigh, NC, USA, ACM: 267-280.
- He, M. M., E. M. Reutzler, X. Jiang, R. H. Katz, S. R. Sanders, D. E. Culler and K. Lutz (2008). An architecture for local energy generation, distribution, and sharing. Energy 2030 Conference, 2008. ENERGY 2008. IEEE, IEEE.
- Jeong, J., X. Jiang and D. Culler (2008). Design and analysis of micro-solar power systems for wireless sensor networks. Networked Sensing Systems, 2008. INSS 2008. 5th International Conference on, IEEE.
- Jiang, X., S. Dawson-Haggerty, J. Taneja, P. Dutta and D. Culler (2008). Creating greener homes

- with IP-based wireless AC energy monitors. Proceedings of the 6th ACM conference on Embedded network sensor systems. Raleigh, NC, USA, ACM: 355-356.
- Jiang, X., S. Dawson-Haggerty, P. Dutta and D. Culler (2009). Design and implementation of a high-fidelity AC metering network. Proceedings of the 2009 International Conference on Information Processing in Sensor Networks, IEEE Computer Society: 253-264.
  - Jiang, X., M. V. Ly, J. Taneja, P. Dutta and D. Culler (2009). Experiences with a high-fidelity wireless building energy auditing network. Proceedings of the 7th ACM Conference on Embedded Networked Sensor Systems. Berkeley, California, ACM: 113-126.
  - Dawson-Haggerty, S., X. Jiang, G. Tolle, J. Ortiz and D. Culler (2010). sMAP: a simple measurement and actuation profile for physical information. Proceedings of the 8th ACM Conference on Embedded Networked Sensor Systems. Zurich, Switzerland, ACM: 197-210.
  - Dawson-Haggerty, S., J. Ortiz, X. Jiang, J. Hsu, S. Shankar and D. Culler (2010). Enabling green building applications. Proceedings of the 6th Workshop on Hot Topics in Embedded Networked Sensors. Killarney, Ireland, ACM: 1-5.
  - Hsu, J., P. Mohan, X. Jiang, J. Ortiz, S. Shankar, S. Dawson-Haggerty and D. Culler (2010). HBCI: human-building-computer interaction. Proceedings of the 2nd ACM Workshop on Embedded Sensing Systems for Energy-Efficiency in Building. Zurich, Switzerland, ACM: 55-60.
  - Jiang, X., S. Dawson-Haggerty and D. Culler (2010). sMAP: simple monitoring and actuation profile. Proceedings of the 9th ACM/IEEE International Conference on Information Processing in Sensor Networks. Stockholm, Sweden, ACM: 374-375.
  - Jiang, X., C.-J. M. Liang, F. Zhao, K. Chen, J. Hsu, B. Zhang and J. Liu (2011). Demo: Creating interactive virtual zones in physical space with magnetic-induction. Proceedings of the 9th ACM Conference on Embedded Networked Sensor Systems. Seattle, Washington, ACM: 431-432.
  - Lanzisera, S., S. Dawson-Haggerty, X. Jiang, H. Y. Cheung, J. Taneja, J.-S. Lai, J. Ortiz, D. Culler and R. Brown (2011). Wireless electricity metering of miscellaneous and electronic devices in buildings. Future of Instrumentation International Workshop (FIW), 2011, IEEE.
  - Katz, R. H., D. E. Culler, S. Sanders, S. Alspaugh, Y. Chen, S. Dawson-Haggerty, P. Dutta, M. He, X. Jiang and L. Keys (2011). "An information-centric energy infrastructure: The berkeley view." Sustainable Computing: Informatics and Systems 1(1): 7-22.
  - Chen, X., L. Xie, X. Jiang, S. Lu and D. Chen (2012). iBookshelf: accurately search and locate books with an adaptive and intelligent bookshelf. Proceedings of the 10th ACM Conference on Embedded Network Sensor Systems. Toronto, Ontario, Canada, ACM: 359-360.
  - Cheng, Y., K. Chen, B. Zhang, C.-J. M. Liang, X. Jiang and F. Zhao (2012). Accurate real-time occupant energy-footprinting in commercial buildings. Proceedings of the Fourth ACM Workshop on Embedded Sensing Systems for Energy-Efficiency in Buildings. Toronto, Ontario, Canada, ACM: 115-122.
  - Hong, D., B. Zhang, Q. Li, S. Nirjon, R. Dickerson, G. Shen, X. Jiang and J. Stankovic (2012). SEPTIMU: continuous in-situ human wellness monitoring and feedback using sensors embedded in

- earphones. Proceedings of the 11th international conference on Information Processing in Sensor Networks. Beijing, China, ACM: 159-160.
- Hong, D., B. Zhang, Q. Li, S. Nirjon, R. Dickerson, G. Shen, X. Jiang and J. A. Stankovic (2012). Demo abstract: SEPTIMU—Continuous in-situ human wellness monitoring and feedback using sensors embedded in earphones. Information Processing in Sensor Networks (IPSN), 2012 ACM/IEEE 11th International Conference on, IEEE.
  - Hu, P., G. Shen, X. Jiang, S.-f. Shih, D. Lu, F. Zhao, D. Hong, Q. Li, S. Nirjon, R. Dickerson and J. A. Stankovic (2012). Septimu 2 - earphones for continuous and non-intrusive physiological and environmental monitoring. Proceedings of the 10th ACM Conference on Embedded Network Sensor Systems. Toronto, Ontario, Canada, ACM: 387-388.
  - Jiang, X., C.-J. M. Liang, K. Chen, B. Zhang, J. Hsu, J. Liu, B. Cao and F. Zhao (2012). Design and evaluation of a wireless magnetic-based proximity detection platform for indoor applications. Proceedings of the 11th international conference on Information Processing in Sensor Networks. Beijing, China, ACM: 221-232.
  - Nirjon, S., R. F. Dickerson, Q. Li, P. Asare, J. A. Stankovic, D. Hong, B. Zhang, X. Jiang, G. Shen and F. Zhao (2012). MusicalHeart: a hearty way of listening to music. Proceedings of the 10th ACM Conference on Embedded Network Sensor Systems. Toronto, Ontario, Canada, ACM: 43-56.
  - Wang, J., F. Cheng, J. Wang, G. Shen and X. Jiang (2012). Genius-on-the-go: FM radio based proximity sensing and audio information sharing. Proceedings of the 10th ACM Conference on Embedded Network Sensor Systems. Toronto, Ontario, Canada, ACM: 363-364.
  - Zhang, B., K. Chen, Y. Cheng, C.-J. M. Liang, X. Jiang and F. Zhao (2012). Location-log: bringing online shopping benefits to the physical world with magnetic-based proximity detection. Proceedings of ACM/IEEE IPSN: 1-5.
  - Jiang, X., J. Jia, G. Wu and J. Z. Fang (2013). Low-cost personal air-quality monitor. Proceeding of the 11th annual international conference on Mobile systems, applications, and services. Taipei, Taiwan, ACM: 491-492.
  - Nirjon, S., R. Dickerson, J. Stankovic, G. Shen and X. Jiang (2013). sMFCC: exploiting sparseness in speech for fast acoustic feature extraction on mobile devices -- a feasibility study. Proceedings of the 14th Workshop on Mobile Computing Systems and Applications. Jekyll Island, Georgia, ACM: 1-6.
  - Nirjon, S., R. F. Dickerson, P. Asare, Q. Li, D. Hong, J. A. Stankovic, P. Hu, G. Shen and X. Jiang (2013). Auditeur: a mobile-cloud service platform for acoustic event detection on smartphones. Proceeding of the 11th annual international conference on Mobile systems, applications, and services. Taipei, Taiwan, ACM: 403-416.
  - Cheng, Y., X. Li, J. Jia, J. Zhang, K. Lin, X. Liu, Y. Li and X. Jiang (2014). An Autonomous Aerial System for Air-Quality Surveillance and Alarm. HotMobile.
  - Cheng, Y., X. Li, Z. Li, S. Jiang, Y. Li, J. Jia and X. Jiang (2014). AirCloud: a cloud-based air-quality monitoring system for everyone. Proceedings of the 12th ACM Conference on Embedded



- Network Sensor Systems. Memphis, Tennessee, ACM: 251-265.
- Li, Y., Y. Cheng, X. Li, Y. Wang, G. Xing and X. Jiang (2014). QiLoc---a Qi-wireless based platform for robust user-initiated indoor location services: demo abstract. Proceedings of the 1st ACM Conference on Embedded Systems for Energy-Efficient Buildings. Memphis, Tennessee, ACM: 184-185.
  - Book Chapter: Cheng, Y., X. Li, Z. Li, S. Jiang and X. Jiang (2014). Fine-Grained Air Quality Monitoring Based on Gaussian Process Regression. Neural Information Processing, Springer International Publishing: 126-134.
  - Li, Y., Y. Wang, Y. Cheng, X. Li and G. Xing (2015). QiLoc: A Qi wireless charging based system for robust user-initiated indoor location services. Sensing, Communication, and Networking (SECON), 2015 12th Annual IEEE International Conference on, IEEE.
  - Chen, X., Chandrasekaran, R., Song, F. and Jiang, X., 2016, April. Personal energy footprint in shared building environment: poster abstract. In Proceedings of the 15th International Conference on Information Processing in Sensor Networks (p. 30). IEEE Press.
  - Mehra, M., Bagri, A., Jiang, X. and Ortiz, J., 2016, June. Image Analysis for Identifying Mosquito Breeding Grounds. In Sensing, Communication and Networking (SECON Workshops), 2016 IEEE International Conference on (pp. 1-6). IEEE.
  - Chandrasekaran, R., de Godoy, D., Xia, S., Islam, M.T., Islam, B., Nirjon, S., Kinget, P. and Jiang, X., 2016, November. SEUS: A Wearable Multi-Channel Acoustic Headset Platform to Improve Pedestrian Safety: Demo Abstract. In Proceedings of the 14th ACM Conference on Embedded Network Sensor Systems CD-ROM (pp. 330-331). ACM.
  - Wei, P., Chen, X., Chandrasekaran, R., Song, F. and Jiang, X., 2016, November. Adaptive and Personalized Energy Saving Suggestions for Occupants in Smart Buildings: Poster Abstract. In Proceedings of the 3rd ACM International Conference on Systems for Energy-Efficient Built Environments (pp. 247-248). ACM.
  - Book Chapter: X. Jiang (2016) Large Scale Air-Quality Monitoring in Smart and Sustainable Cities. Smart Cities: Foundations and Principles, Wiley.
  - Godoy, D., Jia, J., Jiang, X., 2017. Demo Abstract: RIO-40C - A Low-Cost Wearable Sunlight Exposure Monitor for Skincare. In Proceedings of the 2nd ACM/IEEE International Conference on Internet-of-Things Design and Implementation. ACM/IEEE
  - Xia, S., Lu, Y., Wei, P. and Jiang, X., 2017, September. SPINDLES: a smartphone platform for intelligent detection and notification of leg shaking. In Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2017 ACM International Symposium on Wearable Computers(pp. 607-612). ACM.
  - Wei, P., Chen, X., Vega, J., Xia, S., Chandrasekaran, R. and Jiang, X., 2017, November. ePrints: a real-time and scalable system for fair apportionment and tracking of personal energy footprints in commercial buildings. In Proceedings of the 4th ACM International Conference on Systems for Energy-Efficient Built Environments (p. 6). ACM.

- de Godoy, D., Islam, B., Xia, S., Islam, M.T., Chandrasekaran, R., Chen, Y.C., Nirjon, S., Kinget, P. and Jiang, X., 2018, April. PAWS: A Wearable Acoustic System for Pedestrian Safety. In International Conference on Internet-of-Things Design and Implementation.
- de Godoy, D., Jiang, X. and Kinget, P.R., 2018, April. A 78.2 nW 3-Channel Time-Delay-to-Digital Converter using Polarity Coincidence for Audio-based Object Localization. In IEEE Custom Integrated Circuits Conference.
- de Godoy, D., Xia, S., Fernandez, W., Jiang, X. and Kinget, P.R., 2018, April. Demo Abstract: An Ultra-Low-Power Custom Integrated Circuit based Sound-Source Localization System. In International Conference on Internet-of-Things Design and Implementation.
- Wei, P., Xia, S. and Jiang, X., 2018, July. Energy Saving Recommendations and User Location Modeling in Commercial Buildings. In Proceedings of the 26th Conference on User Modeling, Adaptation and Personalization (pp. 3-11). ACM.
- Jia, J., Yu, J., Hanumesh, R.S., Xia, S., Wei, P., Choi, H. and Jiang, X., 2018. Intelligent and privacy-preserving medication adherence system. Smart Health.
- Xia, S., Wei, P., Vega, J.M. and Jiang, X., 2018. SPINDLES+: An adaptive and personalized system for leg shake detection. Smart Health.