Robert LiKamWa

Associate Professor
Arizona State University
School of Arts, Media and Engineering
School of Electrical, Computer and Energy Engineering

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Research Interests

Spatial Computing; Augmented Reality; Virtual Reality; Mixed Reality; Mobile computing; Operating systems; Energy management; Low power sensing on mobile devices; Context-awareness; Computer vision systems; Immersive haptic, tactile, and olfactory systems; frameworks for data-driven storytelling and sensemaking

Education

Ph.D., under Dr. Lin Zhong, Electrical & Computer Engineering, Rice University — 2016
  Thesis: Continuous Mobile Vision: Rethinking the Vision Sensing Pipeline for Energy Efficiency
M.S., Electrical & Computer Engineering, Rice University — 2012
B.S.E.E. (cum laude), Electrical & Computer Engineering, Cum Laude, Rice University — 2010
  Minor, Computational and Applied Math, Rice University — 2010

Academic and Professional Experience

(2022 – current)	Associate Professor, Arizona State University
(2016 – 2022)	Assistant Professor, Arizona State University

Honors/Awards

- Top 5% Teaching Award in Fulton Schools of Engineering (5/2022)
- Top 5% Teaching Award in Fulton Schools of Engineering (5/2021)
- Top 5% Teaching Award in Fulton Schools of Engineering (4/2020)
- NSF CAREER Award (3/2020)
- Google Faculty Research Award (2/2020)
- Top 5% Teaching Award in Fulton Schools of Engineering (4/2019)
- sUAS ASURE Innovation Challenge Award (8/2018)
- Best Poster Award at ACM HotMobile (2/2018)
- Best Poster Award at ACM HotMobile (2/2017)
- Best Presenter Award at Ph.D. Forum @ ACM MobiSys (6/2014)
- Best Paper Award at ACM MobiSys (6/2013)
- Best Paper Award at PhoneSense @ SenSys (11/2011)
- Best Ph.D. Forum Presentation at S3 Workshop @ ACM MobiCom (9/2011)
- Texas Instruments Graduate Fellowship (8/2010)

Refereed Conference Papers

"A Synthetic Training Environment for Assessing Changes in Team Dynamics with the Generalized Intelligent Framework for Tutoring"
  Scotty D Craig, Kevin Gary, Jamie C Gorman, Vipin Verma, Robert LiKamW
  GIFT '24: Generalized Intelligent Framework for Tutoring Users Symposium

"Augmented coach: Volumetric motion annotation and visualization for immersive sports coaching"
  Jiqing Wen, Lauren Gold, Qianyu Ma, Robert LiKamWa
  IEEE VR '24: Proc. of the IEEE Conference on Virtual Reality and 3D User Interfaces

"Squint: A Framework for Dynamic Voltage Scaling of Image Sensors Towards Low Power IoT Vision"
  Venkatesh Kodukula, Mason Manetta, Robert LiKamWa
  ACM MobiCom '23: Proc. of the Int'l Conf of Mobile Computing and Networking

"Embodied mixed reality with passive haptics in STEM education: randomized control study with chemistry titration"
  Mina C Johnson-Glenberg, Shin-Phing C Yu, Frank Liu, Charles Amador, Yueming Bao, Shufan Yu, Robert LiKamWa
  Frontiers in Virtual Reality, 2023

"Spatial Audio Empowered Smart speakers with Xblock-A Pose-Adaptive Crosstalk Cancellation Algorithm for Free-moving Users"
  Frank Liu, Anish Narsipur, Andrew Kemeklis, Lucy Song, Robert LiKamWa
  CPS Week 2023: Cyber-Physical Systems and Internet of Things Week

"Software-Defined Imaging: A Survey"
  Suren Jayasuriya, Odrika Iqbal, Venkatesh Kodukula, Victor Torres, Robert LiKamWa, Andreas Spanias
  Proceedings of the IEEE, 2023

"Geppetteau: Enabling haptic perceptions of virtual fluids in various vessel profiles using a string-driven haptic interface"
  Shahabedin Sagheb, Frank Wencheng Liu, Alex Vuong, Shiling Dai, Ryan Wirjadi, Yueming Bao, Robert LiKamWa
  ACM TEI '23: Proc. of the Int'l. Conf. on Tangible Embedded and Embodied Interactions

"The Smell Engine: A system for artificial odor synthesis in virtual environments"
  Alireza Bahremand, Mason Manetta, Jessica Lai, Byron Lahey, Christy Spackman, Brian H Smith, Richard C Gerkin, Robert LiKamWa
  IEEE VR '22: Proc. of the IEEE Conference on Virtual Reality and 3D User Interfaces

"Characterizing real-time dense point cloud capture and streaming on mobile devices"
  Jinhan Hu, Aashiq Shaikh, Alireza Bahremand, Robert LiKamwa
  ACM HotEdgeVideo '21 Workshop @ MobiCom '21

"Planetary Visor: Immersive Visualization of Orbital and In-Situ Data from Mars for Scientific Analysis and Public Engagement"
  Robert LiKamWa, Kathryn Powell, Lauren Gold, Scott Dickenshied
  AGU '21 Fall Meeting Abstracts

"LensCap: Split-Process Framework for Fine-Grained Visual Privacy Control for Augmented Reality Apps"
  Jinhan Hu, Alexander Shearer, Saranya Rajagopalan, Robert LiKamWa.
  ACM MobiSys '21: Proc. of the 27th Annual Int'l Conf. on Mobile Systems, Applications, and Services

"Rhythmic pixel regions: multi-resolution visual sensing system towards high-precision visual computing at low power"

  Venkatesh Kodukula, Alexander Shearer, Van Nguyen, Srinivas Lingutla, Yifei Liu, Robert LiKamWa
  ACM ASPLOS '21: Proc. of the 26th ACM Int'l Conf. on Architectural Support for Programming Languages and Operating Systems

"Visualizing Planetary Spectroscopy through Immersive On-site Rendering"
  Lauren Gold, Alireza Bahremand, Connor Richards, Justin Hertzberg, Kyle Sese, Alexander Gonzalez,
  Kathryn Powell, Robert LiKamWa
  IEEE VR '21: Proc. of the IEEE Conference on Virtual Reality and 3D User Interfaces

"Adaptive Resolution-Based Tradeoffs for Energy-Efficient Visual Computing Systems"
  Robert LiKamWa, Jinhan Hu, Venkatesh Kodukula, Yifei Liu
  IEEE Pervasive Computing, vol. 20, no. 2, Special Issue on Pervasive Video and Audio, 2021

"Dynamic Temperature Management of Near-Sensor Processing for Energy-Efficient High-Fidelity Imaging
  Venkatesh Kodukula, Saad Katrawala, Britton Jones, Carole-Jean Wu, Robert LiKamWa
  MDPI Sensors, vol. 21, no. 3, 2021

"Coordinate: A Spreadsheet-Programmable Augmented Reality Framework for Immersive Map-based Visualizations"
  Aashiq Shaikh, Linda Nguyen, Alireza Bahremand, Hannah Bartolomea, Frank Liu, Van Nguyen, Derrick
  Anderson, Robert LiKamWa
  IEEE AIVR '19: Proc. of the Int'l Conf. on Artificial Intelligence and Virtual Reality

"SWISH: Shifting Weight-based Interfaces for Simulated Hydrodynamics in Mixed-Reality Fluid Vessels"
  Shahabedin Sagheb, Frank Liu, Alireza Bahremand, Assegid Kidane, Robert LiKamWa
  ACM UIST '19: Proc. of the 31st Annual Symp. on User Interface Software and Technology

 "Banner: An Image Sensor Reconfiguration Framework for Seamless Resolution-based Tradeoffs"
  Jinhan Hu, Saranya Rajagopalan, Alexander Shearer, Robert LiKamWa
  ACM MobiSys '19: Proc. of the 25th Annual Int'l Conf. on Mobile Systems, Applications, and Services

"GLEAM: An illumination estimation framework for real-time photorealistic augmented reality on mobile devices"
  Siddhant Prakash, Alireza Bahremand, Linda D. Nguyen, Robert LiKamWa
  ACM MobiSys '19: Proc. of the 25th Annual Int'l Conf. on Mobile Systems, Applications, and Services

"Protecting Visual Information in Augmented Reality from Malicious Application Developers"
  Jordan Kyle Jensen, Jinhan Hu, Amir Rahmati, Robert LiKamWa
  ACM WearSys workshop @ MobiSys 2019

"Composing Ecosystemically in Responsive Environments with Gestural Media, Objects and Textures"
  Brandon Michael Mechtley, Todd Ingalls, Lauren Hayes, Byron Lahey, Jessica Rajko, Seth Dominicus Thorn,
  Robert LiKamWa, Julian Stein, Garrett Johnson, Oswaldo Emiddio Vasquez, Connor Rawls, Peter Weisman,

Assegid Kidane, Xin Wei Sha
TEI'19: Proc. of the 13ᵗʰ Int'l. Conf. on Tangible Embedded and Embodied Interactions – Studio

"A case for temperature-driven task migration to balance energy efficiency and image quality of vision processing workloads"
Venkatesh Kodukula, Sai Bharadwaj Medapuram, Britton Jones, Robert LiKamWa
HotMobile '18: Proc. of the 18ᵗʰ workshop on mobile systems and applications

"Characterizing the Reconfiguration Latency of Image Sensor Operation on the Android OS"
Jinhan Hu, Jianan Yang, Vraj Delhivala, Robert LiKamWa
HotMobile '18: Proc. of the 18ᵗʰ workshop on mobile systems and applications

"Characterizing Bottlenecks towards a Hybrid Integration of Holographic, Mobile, and Screen-based Data Visualization"
Alexander Shearer, Lei Guo, Megumi Ashley Satkowski, Robert LiKamWa
Immersive Analytics '17 workshop @ IEEE VIS '17

"RedEye: Analog ConvNet Image Sensor Architecture for Continuous Mobile Vision"
Robert LiKamWa, Yunhui Hou, Julian Gao, Mia Polansky, Lin Zhong
ISCA '16: Proc. of the 43rd int'l symposium on computer architecture [AR: 19%]

"Starfish: Efficient concurrency support for computer vision applications"
Robert LiKamWa, Lin Zhong
MobiSys '15: Proc. of the 13th annual int'l conf. on mobile systems, applications, and services [AR: 13%]

"Draining our Glass: An energy and heat characterization of Google Glass"
Robert LiKamWa, Zhen Wang, Aaron Carroll, Felix Xiaozhu Lin, Lin Zhong
APSys '14: Proc. of 5th Asia-Pacific workshop on systems

"Styrofoam: A tightly packed coding scheme for camera-based visible light communication"
David Ramirez, Robert LiKamWa, Jason Holloway
VLCS @ MobiCom '14: Proc. of the 1st ACM workshop. on Visible Light Communication Systems

"Energy proportional image sensors for continuous mobile vision" *(Best Paper Award)*
Robert LiKamWa, Bodhi Priyantha, Matthai Philipose, Lin Zhong, Paramvir Bahl
MobiSys '13: Proc. of the 11th annual int'l conf. on mobile systems, applications, and services

"MoodScope: Building a mood sensor from smartphone usage patterns"
Robert LiKamWa, Yunxin Liu, Nicholas D. Lane, Lin Zhong
MobiSys '13: Proc. of the 11th annual int'l conf. on mobile systems, applications, and services

"Reflex: using low-power processors in smartphones without knowing them"
Felix Xiaozhu Lin, Zhen Wang, Robert LiKamWa, Lin Zhong
ASPLOS '12: Proc. of the 17th int'l conf. on arch. support for programming languages and op. systems

"Can your smartphone infer your mood?" *(Best Paper Award)*
Robert LiKamWa, Yunxin Liu, Nicholas D. Lane, Lin Zhong
PhoneSense '11: Proc. of the second int'l workshop on sensing applications on mobile phones

Other Works

"Tutorial: Photogrammetry of Martian Terrains from Perseverance Rover Imagery"
  Lauren Gold, Kathryn Powell, Robert LiKamWa
  IEEE VR '24

"Work-in-Progress—Career XRcade Framework: Student-Driven Collaborative Platform for Immersive Career Exploration, Insights from Stakeholders"
  Hanieh Khaleghian, Julianna Piechowicz, Rachael Kaye, Robert LiKamWa
  iLRN '24: Proceedings of the Immersive Learning Research Network

"Design and evaluation techniques for odor mixing"
  Jessica Lai, Mason Manetta, Alireza Bahremand, Lauryn Mannigel, Byron Lahey, Christy Spackman, Brian H Smith, Richard C Gerkin, Robert LiKamWa
  STT Workshop: Smell, Taste, and Temperature Interfaces Workshop at CHI 2023

"Demo: Adaptive 5G systems for interactive volumetric sports analysis in augmented reality"
  Jiqing Wen, Lauren Gold, Jinhan Hu, Alireza Bahremand, Aashiq Shaikh, Charmaine Farber, Yasser Dbeis, Sameer Channar, Connor Richards, Ryan Hoang, Craig Spencer, Nick Tang, Robert LiKamWa
  ACM MobiSys 2022, *(Best Demo Award)*

"A Wrist-worn Device for Pneumatic Haptic Proxies-Touching Virtual Objects"
  Frank Wencheng Liu, Mason Manetta, Gideon Kamau, Andrew Olson, Austin Jeltes, Jack Haehl, Byron Lahey, Robert LiKamWa
  Sustainable Haptic Design Workshop at CHI '22

"Work-in-Progress--—Specific Heat of Water Experiment: Augmented Reality Chemistry Lab"
  Ryan Wirjadi, Alex Vuong, Frank Liu, Robert LiKamWa
  iLRN 2021: 7th International Conference of the Immersive Learning Research Network

"Virtually composing and dynamically mixing complex odors"
  Alireza Bahremand, Richard C. Gerkin, Christy Spackman, Brian H. Smith, Robert LiKamWa
  Smell, Taste, and Temperature Workshop @ CHI '21

"JMARS Augmented and Virtual Reality Experiences for Planetary Research, Education, and Collaboration"
  Lauren Gold, Hannah Bartolomea, Shaun Xiong, Alexander Gonzalez, Kathryn Powell, Scott Dickenshied, Robert LiKamWa
  American Geophysical Union Fall Meeting 2020

Work-in-Progress—Titration Experiment: Virtual Reality Chemistry Lab with Haptic Burette
  Charles Amador, Frank W. Liu, Mina C. Johnson-Glenberg, Robert LiKamWa
  iLRN 2020: 6th Int'l Conf' of the Immersive Learning Research Network

"Virtual and Augmented Reality Tools for Planetary Scientific Analysis and Public Engagement"
  Alireza Bahremand, Lauren Gold, Connor Richards, Kyle Sese, Kathryn Powell, Scott Dickenshied, Saadat Anwar, Johnathon Hill, Chris Edwards, Robert LiKamWa
  Lunar and Planetary Science Conference 2020
Demo: "Hololucination: a framework for live augmented reality presentations across mobile devices."

Bahremand, Alireza, Linda Nguyen, Tanya Harrison, and Robert LiKamWa.
IEEE AIVR'19: International Conference on Artificial Intelligence and Virtual Reality

"SWISH: Shifting Weight-based Interfaces for Simulated Hydrodynamics in Mixed-Reality Fluid Vessels"
Shahabedin Sagheb, Alireza Bahremand, Robert LiKamWa, Byron Lahey
ACM TEI'19: Proc. of the 13th Int'l. Conf. on Tangible Embedded and Embodied Interactions – Works in Progress

"An Integrated Environment for Visualizing In-Situ and Orbital Planetary Data"
Kathryn Powell, Ali Bahremand, Alec Gonzalez, Robert LiKamWa, Chris Edwards
Lunar and Planetary Science Conference 2019

Invited keynote: "System Challenges to Mixed Reality on Mobile Devices: Performance, Efficiency, Realism"
Robert LiKamWa
S3 Workshop @ MobiCom '18

Poster: "Real-time Illumination Estimation Using Collaborative Photorealistic Rendering for
Mobile Augmented Reality" *(Best Poster Award)*
Siddhant Prakash, Robert LiKamWa
ACM HotMobile '18: workshop on mobile computing systems and applications

Poster: "Temperature-driven task migration to balance energy efficiency and thermal noise of
sensor processing workloads" *(Best Poster Award)*
Venkatesh Kodukula, Robert LiKamWa
ACM HotMobile '17: workshop on mobile computing systems and applications

Invited Paper: "Efficient image processing for continuous mobile vision"
Robert LiKamWa, Yunhui Hou, Peter Washington, Lin Zhong
SID Display Week '16, imaging technologies and applications

"Efficient image processing for continuous mobile vision" *(Best Presentation Award)*
Robert LiKamWa
MobiSys PhD Forum '14: Proc. of the MobiSys 2014 PhD forum workshop

Poster: "Retrofitting computer vision libraries for concurrent support on mobile devices"
Robert LiKamWa, Lin Zhong
MobiCom '14: Proc. of the 20th annual int'l conf. on mobile computing and networking

Demo: "SUAVE: Sensor-based User-Aware Viewing Enhancement for mobile device displays"
Robert LiKamWa, Lin Zhong
UIST '11: Adjunct Proc. of the 24th annual ACM symposium on user interface software and technology

Funded Grants

2023
- **US Department of Defense: Army Materiel Command,** Center of Excellence in Future Generation Wireless Technology, $10,000,000, Yanchao Zhang, Daniel Bliss, Chaitali Chakrabarti, Robert LiKamWa, Antonia Papandreou-Suppapola, Guoliang Xue, Yanchao Zhang, Ness Shroff
- **US Department of Defense,** Synthetic Team Training and Evaluation Environment, $1,390,692. Scotty Craig, Kevin Gary, Jamie Gorman, Robert LiKamWa, Vipin Verma

- **Act One,** Virtual Reality Field Trips to Indigenous Artists in Arizona, $128,000. Solo PI

2022
- **Komatsu,** Immersive Haptics for VR Training, $199,985, Solo PI
- **Komatsu,** The Komatsu Way VR Experience, $249,709, Solo PI
- **NSF RETTL:** Multi-modal learning for enhanced engagement and presence, $849,998. Robert LiKamWa, Christy Spackman, Ruth Wylie, Byron Lahey, Richard Gerkin.

2021
- **Proctor and Gamble Gift,** Real-time, In-Context Consumer Understanding via VR and Olfactory Science, $50,000, 2021, Robert LiKamWa, Christy Spackman (ASU SFIS), Brian H. Smith (ASU SOLS), Richard Gerkin (ASU SOLS).

2020
- **NSF CAREER**: Rhythmic Pixel Region Interface Systems for Efficient, Performant, and Precise Augmented Reality, $450,000, Solo PI.
- **NSF REU Site:** Computational Imaging and Mixed-Reality for Visual Media Creation and Visualization, $324,000, Suren Jayasuriya (ASU AME), Robert LiKamWa (Co-PI).
- **Google Faculty Research Award,** Multi-resolution visual sensing for augmented reality on mobile systems, $51,947, Solo PI.

2019
- **NSF Cyber Physical Systems:** CPS: Small: Real-time spatial audio on the Internet of Things, $499,944, Robert LiKamWa (PI), Visar Berisha (ASU ECEE/SHS).
- **NSF Cyberlearning for the Future of Work:** Augmented Fluidity: Haptic vessels for online education of chemistry and fluid concepts in VR and augmented reality, $750,000, Robert LiKamWa (PI), Mina Johnson (ASU Psychology), Byron Lahey (ASU AME).
- **NSF Software Hardware Foundations**: Small: Collaborative Research: Software-Defined Imaging for Motion-aware Visual Computing, $332,999, Suren Jayasuriya (ASU AME/ECEE), Robert LiKamWa (Co-PI), Adrian Sampson (Cornell).

2018
- **ASU Global Sports Institute**, $20,000, 2018, Solo PI.
- **Herberger Seed Grant,** $12,000, 2018, Robert LiKamWa, Lauren Hayes (ASU AME).

2017
- **National Science Foundation**, CNS-1657602 CRII: CSR: System Support for Reactive Sensor Operation for Efficiency and Performance, $182,950, Solo PI.
- **Samsung Mobile Processor Innovation Lab Gift**, Reducing Motion-to-Photon Latency for Visual-Inertial Fusion for Wearable Operating Systems, $60,000, Solo PI.

Patents

- Method and apparatus for time-domain crosstalk cancellation in spatial audio – Robert LiKamWa, Frank Wencheng Liu, 2020 US; 17/433,797 [granted]
- Fidelity-driven runtime thermal management for near-sensor architectures - Venkatesh Kodukula, Saad Katrawala, Britton Jones, Robert LiKamWa, 2020, US; 16/684,735 [granted]

- Method and Apparatus for Simulated Hydrodynamics in Mixed-Reality Fluid Vessels - Robert LiKamWa, Shahabedin Sagheb, Alireza Bahremand, Byron Lahey, Frank W. Liu, Assegid Kidane, 2020, US; 16/657,972 [granted]
- Illumination estimation for captured video data in mixed-reality applications - Siddhant Prakash, Paul Nathan, Linda Nguyen, Robert LiKamWa, Alireza Bahremand, 2020, US; 16/585,479 [granted]
- Systems, methods, and apparatuses for implementing an image sensor reconfiguration framework for seamless resolution-based tradeoffs - Jinhan Hu, Robert LiKamWa, Alexander Shearer, Saranya Rajagopalan, 2020, US; 16/898,791 [granted]
- Systems and methods for a multi-resolution visual sensing architecture for augmented reality - Venkatesh Kodukula, Alexander Shearer, Van Nguyen, Srinivas Lingutla, Robert LiKamWa 2023, US; 18/174,259 [pending]
- Systems, methods, and apparatuses for implementing olfactory delivery in virtualized environments using an olfactory delivery engine – Alireza Bahremand, Richard Gerkin, Mason Manetta, Jessica Lai, Robert LiKamWa, Brian Smith, Christy Spackman, 2022, US; 18/553,089 [pending]
- Energy-proportional image sensor (Microsoft) - Robert LiKamWa, Nissanka A. Bodhi Priyantha, Matthai Philipose, Lin Zhong, Paramvir Bahl, 2013/2/19; US; 13/770,031 [granted]
- Wireless electronic pegboard setup for quantification of dexterity (Shriner's Hospital; Rice University) - Steven E. Irby, Dillon P. Eng, Rachel Jackson, Allison C. Scully, Jessica Scully, Robert LiKamWa, Marcia K. O'Malley, Z. Maria Oden, Gloria R. Gogola, Avery L. Cate, 2012/4/13; US; 13/446,610 [application]
- Hand muscle measurement device - Shuai Xu, Gloria R. Gogola, Graham Sattler, Sridhar Madala, Robert LiKamWa, 2010/10/8; US; 13/500,607 [application]

Mentorship

Ph.D. students
- Jinhan Hu [Ph.D. Computer Engineering, graduated 2022]
- Venkatesh Kodukula [Ph.D. Computer Engineering, graduated 2023]
- Frank Liu [Ph.D. Computer Engineering, graduated 2024]
- Lauren Gold [Ph.D. Media, Arts and Sciences]
- Yifei Liu [Ph.D. Computer Engineering]
- Jessica Lai [Ph.D. Electrical Engineering]
- Hanieh Khaleghian [Ph.D. Design]
- Jiqing Wen [Ph.D. Media, Arts and Sciences]
- Rachael Kaye [Ph.D. Media, Arts and Sciences]
- Flemming Laursen [Ph.D. Media, Arts and Sciences]
- Krutik Pandya [Ph.D. Media, Arts and Sciences]

Teaching

- Fall 2024, AME 494/598: Designing for Dreamscape
- Summer 2024, AME 294: Game Engine Fundamentals
- Spring 2024, EEE 598: AR/VR Systems
- Spring 2024, AME 591: Designing Extended Reality Experiences
- Fall 2023, AME 360: Designing Mixed Reality Experiences
- Fall 2023, AME 494/598: Designing for Dreamscape

- Summer 2023, AME 294: Game Engine Fundamentals
- Spring 2022, EEE 598: Mobile Systems Architecture
- Fall 2021, AME 494/598: Designing for Dreamscape
- Spring 2021, AME 394: Designing and Implementing Mixed Reality Experiences
- Fall 2020, EEE 598: Mobile Systems Architecture
- Spring 2021, AME 394: Designing and Implementing Mixed Reality Experiences
- Fall 2020, EEE 598: Mobile Systems Architecture
- Spring 2020, AME 394: Designing and Implementing Mixed Reality Experiences
- Fall 2019, EEE 120 / CSE 120: Digital Design Fundamentals
- Spring 2019, AME 394: Designing and Implementing Mixed Reality Experiences
- Fall 2018, EEE 598: Mobile Systems Architecture
- Spring 2018, AME 394: Designing and Implementing Mixed Reality Experiences
- Fall 2017, EEE 598: Mobile Systems Architecture
- Spring 2017, AME 112: Computational Thinking
- Fall 2016, EEE 598: Mobile Systems Architecture

Professional Service

- 2025: ACM MobiSys '25 Technical Program Committee
- 2024: ACM HotMobile '25 Technical Program Committee
- 2024: ACM MobiCom '25 Technical Program Committee
- **2024: ACM MobiSys Technical Program Committee Chair**
- 2023: ISMAR '23 Conference IPC Member
- 2023: ACM MobiSys '23 Technical Program Committee
- 2023: ACM MobiCom '23 Technical Program Committee
- 2022: ACM MobiCom '22 Technical Program Committee
- **2021: ACM HotMobile '21 General Chair**
- 2021: ACM MobiSys '21 Technical Program Committee
- 2021: ACM MobiCom '21 Technical Program Committee
- 2020: ACM MobiSys '20 Technical Program Committee
- 2020: ACM HotMobile '20 Technical Program Committee
- 2020: ACM MobiCom '20 Technical Program Committee
- 2019: ACM MobiSys '19 Technical Program Committee
- 2019: ACM MobiCom '19 Technical Program Committee, Publicity Chair
- 2019: ACM HotMobile '19 Technical Program Committee
- 2018: ACM MobiCom '18 Technical Program Committee, Mobile App Competition Chair
- 2018: ACM MobiCom '18 Mobile Application Competition Chair
- 2018: ACM MobiSys '18 External Technical Program Committee, Technical Program Committee Local Host
- 2018: ACM/IEEE ISLPED '18 Technical Program Committee
- 2018: IEEE SECON '18 Technical Program Committee
- 2018: ACM HotMobile '18 Technical Program Committee, Local Chair

- 2017: ACM MobiCom '17 Technical Program Committee
- 2017: ACM MobiSys '17 External Technical Program Committee
- 2017: ACM HotMobile '17 Technical Program Committee
- 2017: ACM/IEEE ISLPED '17 Technical Program Committee
- 2016: Visible Light Communication Systems (VLCS) '16 Workshop Panel Chair
- 2016: ACM MobiCom '16 Social Chair
- 2015: ACM MobiSys '16 Poster/Demo/Video Regional Chair (North America)
- 2015: EAI MobiCASE '15 Technical Program Committee
- 2015: ACM MobiSys '15 Publicity Chair