Xiaoying Yang

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Education

University of California, Los Angeles (UCLA)   *September 2021 – Present*
Ph.D. in Electrical and Computer Engineering
Advisor: Yang Zhang

Tongji University, Shanghai   *September 2015 – July 2020*
Bachelor of Engineering in Electrical Engineering and Automation (Honors)

Publications

Xiaoying Yang, Qian Lu, Jeeeun Kim and Yang Zhang. 2025. To Appear. In Proceedings of the 38th Annual ACM Symposium on User Interface Software and Technology (Conditionally accepted, UIST'25)

Vivian Shen[†], Xiaoying Yang[†], Chris Harrison and Yang Zhang. 2025. To Appear. In Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies ([†]Equal Contribution, Conditionally accepted, IMWUT'25)

Qian Lu, Xiaoying Yang, Xue Wang, Jacob Sayono, Yang Zhang, and Jeeeun Kim. 2025. LumosX: 3D Printed Anisotropic Light-Transfer. In Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems (CHI'25) [DOI]

Xiaoying Yang, Xue Wang, Gaofeng Dong, Zihan Yan, Mani Srivastava, Eiji Hayashi, and Yang Zhang. 2023. Headar: Sensing Head Gestures for Confirmation Dialogs on Smartwatches with Wearable Millimeter-Wave Radar. In Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT'23) [DOI][VIDEO]

Xiaoying Yang, Jacob Sanoyo, Yang Zhang. 2023. CubeSense++: Smart Environment Sensing with Interaction-Powered Corner Reflector Mechanisms. In Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology (UIST '23) [DOI] [VIDEO]

Xiaoying Yang, Jacob Sayono, Jess Xu, Jiahao "Nick" Li, Josiah Hester, and Yang Zhang. 2022. MiniKers: Interaction-Powered Smart Environment Automation. In the Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT '22) [DOI]

Siyou Pei, Pradyumna Chari, Xue Wang, Xiaoying Yang, Achuta Kadambi, and Yang Zhang. 2022. ForceSight: Non-Contact Force Sensing with Laser Speckle Imaging. In Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology (UIST '22) [DOI] [VIDEO]

Posters, Extended Abstracts

Xiaoying Yang, Jacob Sanoyo, Jess Xu, Yang Zhang. 2024. Interaction-Power Stations: Turning Environments into Ubiquitous Power Stations for Charging Wearables. 2024 CHI Conference on Human Factors in Computing Systems (CHI '24, Late-Breaking Work) [DOI][VIDEO]

Xiaoying Yang, and Yang Zhang, CubeSense: Wireless, Battery-Free Interactivity through Low-Cost Corner Reflector Mechanisms. 2021 CHI Conference on Human Factors in Computing Systems (CHI '21, Late-Breaking Work) [DOI]

Professional Experience

UCLA, Human-Centered Computing & Intelligent Sensing Lab   *June 2021 - Present*
Research Assistant, Advisor: Yang Zhang   *Los Angeles, CA, USA*
Topic: Interaction-Powered Internet-of-Things (IoT)

- Designed, prototyped and evaluated novel IoT, wearable and AR/VR interactive systems
- Led the research on utilizing human kinetic energy as power sources for sensors and actuators
- Led the research on mmWave backscatter for human activity sensing
- Outcome: seven publications, distinguished master thesis research award

Keysight Technologies, Communication Solution Group *June 2024 - December 2024*
AI/ML R&D Intern, Manager: Balaji Raghothaman *Santa Rosa, CA, USA*
Topic: mmWave Joint Communication and Sensing
- Designed machine learning-driven environmental perception applications using 5GNR mmWave
- Explored data denoising and synthesis through target and channel disentanglement
- Outcome: major contributor for three demos, manuscript in preparation

Honors & Awards

Distinguished Master's Thesis Research Award	UCLA ECE	*2024*
Special Recognitions for Outstanding Reviews	IMWUT	*2023-2024*
Travel Award	Ubicomp	*2023*
Travel Scholarship	UIST	*2022*
Honorable Mention Award for ForceSight Demo	UIST	*2022*
Graduate Dean's Scholar Award	UCLA	*2021*
Outstanding Undergraduate	Shanghai	*2020*

Service

Subcommittee Chair Assistant	CHI	*2025*
Reviewer	UIST	*2022-2025*
Reviewer	CHI	*2023-2025*
Reviewer	IMWUT	*2023-2024*

Teaching Experience

ECE ENG100 Electrical and Electronic Circuits	Circuit Theory	*UCLA, 2025*
ECE 209AS Engineering Interactive Systems	Machine Learning, Unity	*UCLA, 2022*
Open-Source Hardware and Programming	Arduino, Raspberry Pi	*Tongji, 2020*

Skills

Programming Languages	Python, C/C++, C#, MATLAB, JavaScript
Frameworks & Libraries	PyTorch, Unity, OpenCV, OpenSim
Hardware Design & Prototyping	Eagle PCB, Fusion 360, Arduino, ESP32, nRF52, Raspberry Pi
Platforms & Systems	Linux, Android, iOS, Oculus Quest