

KE LI

Cornell University, 107 Hoy Rd, Ithaca, NY 14853 | kl975@cornell.edu | jamkeli.com

EDUCATION

Cornell University Jul. 2021 - May 2027 (Expected)

Ph.D. Candidate at [SciFi Lab](#) in Information Science, College of Computing and Information Science

- **Advisor:** Prof. [Cheng Zhang](#), **Special Committee Member:** Prof. [Deborah Estrin](#) and Prof. [Rajalakshmi Nandakumar](#)

- **Concentration:** Ubiquitous Computing, Sensing Systems, Wearable Devices, and Artificial Intelligence

Cornell University Jul. 2021 - Dec. 2024

M.S. in Information Science, College of Computing and Information Science

Shanghai Jiao Tong University (SJTU) Sept. 2016 - Jul. 2020

B.S. in Information Engineering, School of Electronic Information and Electrical Engineering

- **Overall GPA:** 91.41/100 (Rank 3/158)
- Outstanding Graduate from Universities in Shanghai (**Top 5%**)

PUBLICATIONS

[Head and Body Pose Estimation using Ultrasound Sensing on Smart Glasses](#). **Ke Li**, Robin Kips, Filippo Arcadu, Marek Schikora, John Ho, Chris Graf, Jim Chen, Xingxing Cai, Gawsalyan Sivapalan, Ariyan Zarei, and Yan Deblangey. (*Accepted for publication at CHI EA '26*) Barcelona, Spain Apr. 2026

[µTouch: Enabling Accurate, Lightweight Self-Touch Sensing with Passive Magnets](#). Siyuan Wang, **Ke Li**, Jingyuan Huang, Jike Wang, Cheng Zhang, Alanson P. Sample, and Dongyao Chen. (*Accepted for publication at PerCom '26*) Pisa, Italy Mar. 2026

[SonicID: User Identification on Smart Glasses with Acoustic Sensing](#). **Ke Li**, Devansh Agarwal, Ruidong Zhang, Vipin Gunda, Tianjun Mo, Saif Mahmud, Boao Chen, François Guimbretière, and Cheng Zhang. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '24)* 8, 4, Article 169, 27 pages. Nov. 2024

[ActSonic: Recognizing Everyday Activities from Inaudible Acoustic Wave Around the Body](#). Saif Mahmud, Vineet A Parikh, Qikang Liang, **Ke Li**, Ruidong Zhang, Ashwin Ajit, Vipin Gunda, Devansh Agarwal, François Guimbretière, and Cheng Zhang. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '24)* 8, 4, Article 183, 32 pages. Nov. 2024

[Ring-a-Pose: A Ring for Continuous Hand Pose Tracking](#). Tianhong Catherine Yu, Guilin Hu, Ruidong Zhang, Hyunchul Lim, Saif Mahmud, Chi-Jung Lee, **Ke Li**, Devansh Agarwal, Shuyang Nie, Jinseok Oh, François Guimbretière, and Cheng Zhang. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '24)* 8, 4, Article 189, 30 pages. Nov. 2024

[EchoGuide: Active Acoustic Guidance for LLM-Based Eating Event Analysis from Egocentric Videos](#). Vineet Parikh, Saif Mahmud, Devansh Agarwal, **Ke Li**, François Guimbretière, and Cheng Zhang. In *Proceedings of the 2024 ACM International Symposium on Wearable Computers (ISWC '24)*, 40–47. **Best Paper Honorable Mention Award** Melbourne, Australia Oct. 2024

[AI-Powered Eyewear for Routine Facial Expression Analysis in Parkinson's Disease: Study Design and Goals](#). Hwai Yin Ooi, Cheng Zhang, **Ke Li**, Jordan Narins, and Harini Sarva. *The International Congress of Parkinson's Disease and Movement Disorders*, 39 (suppl 1). Sept. 2024

[GazeTrak: Exploring Acoustic-based Eye Tracking on a Glass Frame](#). **Ke Li**, Ruidong Zhang, Boao Chen, Siyuan Chen, Sicheng Yin, Saif Mahmud, Qikang Liang, François Guimbretière, and D.C., USA Nov. 2024

- Cheng Zhang. In *Proceedings of the 30th Annual International Conference on Mobile Computing and Networking (ACM MobiCom '24)*, 497–512.
- [**EyeEcho: Continuous and Low-power Facial Expression Tracking on Glasses.**](#) **Ke Li**, Ruidong Zhang, Siyuan Chen, Boao Chen, Mose Sakashita, François Guimbretière, and Cheng Zhang. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)*, Article 319, 1–24. Honolulu, USA May 2024
- [**EchoWrist: Continuous Hand Pose Tracking and Hand-Object Interaction Recognition Using Low-Power Active Acoustic Sensing On a Wristband.**](#) Chi-Jung Lee, Ruidong Zhang, Devansh Agarwal, Tianhong Catherine Yu, Vipin Gunda, Oliver Lopez, James Kim, Sicheng Yin, Boao Dong, **Ke Li**, Mose Sakashita, François Guimbretière, and Cheng Zhang. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)*, Article 403, 1–21. Honolulu, USA May 2024
- [**HPSpeech: Silent Speech Interface for Commodity Headphones.**](#) Ruidong Zhang, Hao Chen, Devansh Agarwal, Richard Jin, **Ke Li**, François Guimbretière, and Cheng Zhang. In *Proceedings of the 2023 ACM International Symposium on Wearable Computers (ISWC '23)*, 60–65. **Best Paper Honorable Mention Award** Cancún, Mexico Oct. 2023
- [**EchoNose: Sensing Mouth, Breathing and Tongue Gestures inside Oral Cavity using a Non-contact Nose Interface.**](#) Rujia Sun, Xiaohe Zhou, Benjamin Steeper, Ruidong Zhang, Sicheng Yin, **Ke Li**, Shengzhang Wu, Sam Tilsen, François Guimbretière, and Cheng Zhang. In *Proceedings of the 2023 ACM International Symposium on Wearable Computers (ISWC '23)*, 22–26. Cancún, Mexico Oct. 2023
- [**PoseSonic: 3D Upper Body Pose Estimation Through Egocentric Acoustic Sensing on Smartglasses.**](#) Saif Mahmud, **Ke Li**, Guilin Hu, Hao Chen, Richard Jin, Ruidong Zhang, François Guimbretière, and Cheng Zhang. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '23)* 7, 3, Article 111, 28 pages. Sept. 2023
- [**EchoSpeech: Continuous Silent Speech Recognition on Minimally-obtrusive Eyewear Powered by Acoustic Sensing.**](#) Ruidong Zhang, **Ke Li**, Yihong Hao, Yufan Wang, Zhengnan Lai, François Guimbretière, and Cheng Zhang. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)*, Article 852, 1–18. Hamburg, Germany Apr. 2023
- [**EarIO: A Low-power Acoustic Sensing Earable for Continuously Tracking Detailed Facial Movements.**](#) **Ke Li**, Ruidong Zhang, Bo Liang, François Guimbretière, and Cheng Zhang. *Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '22)* 6, 2, Article 62, 24 pages. Jul. 2022
- [**Locating Everyday Objects using NFC Textiles.**](#) Jingxian Wang, Junbo Zhang, **Ke Li**, Chengfeng Pan, Carmel Majidi, and Swarun Kumar. In *Proceedings of the 20th International Conference on Information Processing in Sensor Networks (IPSN '21)*, 15–30. **Best Paper Award & Best Presentation Award** Nashville, USA May 2021
- [**A Constant Factor Approximation for \$d\$ -Hop Connected Dominating Set in 3-Dimensional Wireless Network.**](#) **Ke Li**, Xiaofeng Gao, Fan Wu, and Guihai Chen. In *IEEE Transactions on Wireless Communications (TWC)*, vol. 18, no. 9, pp. 4357-4367, Sept. 2019. Sept. 2019
- [**OLEC: A Machine-Learning-Based Energy-Efficient Clustering Algorithm to Prolong Network Lifespan for IoT in High-Dimensional Space.**](#) **Ke Li**, Haowei Huang, Xiaofeng Gao, Fan Wu, and Guihai Chen. In *Proceedings of the 48th International Conference on Parallel Processing (ICPP '19)*, Article 105, 1–10. Kyoto, Japan Aug. 2019

WORK EXPERIENCES

Meta	Aug. 2025 - Dec. 2025
<i>Computer Science Research Intern in the domain of computer vision, machine learning, sensor fusion, and HCI software and hardware development</i>	
Carnegie Mellon University (CMU)	Jul. 2019 - Sept. 2019
<i>Research Assistant in Department of Electrical and Computer Engineering, Supervisor: Prof. Swarun Kumar</i>	

HONORS & AWARDS

Qualcomm Innovation Fellowship 2024	Apr. 2024
<i>Fellowship focused on recognizing, rewarding, and mentoring PhD students based on Qualcomm's core values of innovation, execution, and teamwork</i>	
Nominated for a 2021-2022 Outstanding Teaching Award	May 2022
<i>Honor bestowed on outstanding PhD teaching assistants in Information Science at Cornell</i>	
Outstanding Graduate in Shanghai (Top 5%)	Jun. 2020
<i>Honor bestowed on outstanding graduates from universities in Shanghai</i>	
A-level Outstanding Scholarship of Shanghai Jiao Tong University (Top 1%)	Nov. 2019
<i>Scholarship awarded to outstanding students at SJTU</i>	
Tang Lixin Scholarship (Top 0.2%)	Oct. 2019
<i>Scholarship founded by Mr. Tang Lixin and awarded to Top 60 students at SJTU</i>	
National Scholarship*2 (3/158, 1/158)	Oct. 2018, 2019
<i>Top scholarship awarded to undergraduates in China for their achievements in academics</i>	
B-level Outstanding Scholarship of Shanghai Jiao Tong University*2 (Top 5%, Top 2%)	Nov. 2017, 2018
<i>Scholarship awarded to outstanding students at SJTU</i>	
Wen-Yuan Pan Scholarship (Top 5%)	Dec. 2017
<i>Scholarship founded by Wen-Yuan Pan Foundation</i>	

SERVICE

External Reviewer	2022 - Present
<i>UbiComp '22 '23 '24 '25 '26, UIST '23, CHI '24 '25 '26</i>	

TEACHING EXPERIENCES

INFO 4100/5101: Learning Analytics	Spring '26
<i>Teaching Assistant at Cornell University, Instructor: Prof. Rene Kizilcec</i>	
INFO 2951: Introduction to Data Science with R	Spring '25
<i>Teaching Assistant at Cornell University, Instructor: Prof. Benjamin Soltoff</i>	
INFO 4320/5321: Introduction to Rapid Prototyping and Physical Computing	Fall '22 '23, Spring '23
<i>Teaching Assistant at Cornell University, Instructor: Prof. Cheng Zhang</i>	
INFO 4120/6120: Ubiquitous Computing (Nominated for Outstanding Teaching Award)	Fall '21
<i>Teaching Assistant at Cornell University, Instructor: Prof. Cheng Zhang</i>	

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

Development Program for Excellent Student of SJTU, Group Leader	Apr. 2017 – Apr. 2018
<ul style="list-style-type: none">Organized various activities, such as lectures, speech contests, volunteer programs, and summer social activities.Awarded Outstanding Participant Title in the 2018 Summer Social Practice of SJTU (Top 2%).	

Master Distinguished Lecture, SJTU, Director

May. 2017 - Sept. 2018

- Organized professional academic lectures and invited scholars for speeches, including 8 Nobel Prize Laureates.
- Oversaw the entire process of lecture, including brand building, publicity, directing, reception and recognition.