

# KE LI

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## EDUCATION

<b>Cornell University</b>	Jul. 2021 - Aug. 2026 (Expected)
<i>Ph.D. Candidate at <a href="#">SciFi Lab</a> in Information Science, College of Computing and Information Science</i>	
<ul style="list-style-type: none"><li><b>Advisor:</b> Prof. <a href="#">Cheng Zhang</a>, <b>Special Committee Member:</b> Prof. <a href="#">Deborah Estrin</a> and Prof. <a href="#">Rajalakshmi Nandakumar</a></li><li><b>Concentration:</b> Ubiquitous Computing, Sensing Systems, Wearable Devices, and Artificial Intelligence</li></ul>	
<b>Shanghai Jiao Tong University (SJTU)</b>	Sept. 2016 - Jul. 2020
<i>B.S. in Information Engineering, School of Electronic Information and Electrical Engineering</i>	
<ul style="list-style-type: none"><li><b>Overall GPA:</b> 91.41/100 (Rank <b>3/158</b>)</li><li>Outstanding Graduates from Universities in Shanghai (<b>Top 5%</b>)</li></ul>	
<b>Carnegie Mellon University (CMU)</b>	Jul. 2019 - Sept. 2019
<i>Research Assistant in Department of Electrical and Computer Engineering, Supervisor: Prof. <a href="#">Swarun Kumar</a></i>	

## PUBLICATIONS

<a href="#">SonicID: User Identification on Smart Glasses with Acoustic Sensing</a> . <b>Ke Li</b> , Devansh Agarwal, Ruidong Zhang, Vipin Gunda, Tianjun Mo, Saif Mahmud, Boao Chen, François Guimbretière, and Cheng Zhang. <i>Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '24)</i> 8, 4, Article 169, 27 pages. (Accepted Pending Minor Revisions)	Oct. 2025 (Expected)
<a href="#">ActSonic: Recognizing Everyday Activities from Inaudible Acoustic Wave Around the Body</a> . Saif Mahmud, Vineet A Parikh, Qikang Liang, <b>Ke Li</b> , Ruidong Zhang, Ashwin Ajit, Vipin Gunda, Devansh Agarwal, François Guimbretière, and Cheng Zhang. <i>Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '24)</i> 8, 4, Article 183, 32 pages. (Accepted Pending Minor Revisions)	Oct. 2025 (Expected)
<a href="#">Ring-a-Pose: A Ring for Continuous Hand Pose Tracking</a> . Tianhong Catherine Yu, Guilin Hu, Ruidong Zhang, Hyunchul Lim, Saif Mahmud, Chi-Jung Lee, <b>Ke Li</b> , Devansh Agarwal, Shuyang Nie, Jinseok Oh, François Guimbretière, and Cheng Zhang. <i>Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '24)</i> 8, 4, Article 189, 30 pages. (Accepted Pending Minor Revisions)	Oct. 2025 (Expected)
<a href="#">EchoGuide: Active Acoustic Guidance for LLM-Based Eating Event Analysis from Egocentric Videos</a> . Vineet Parikh, Saif Mahmud, Devansh Agarwal, <b>Ke Li</b> , François Guimbretière, and Cheng Zhang. In <i>Proceedings of the 2024 ACM International Symposium on Wearable Computers (ISWC '24)</i> , 40–47. <b>Best Paper Honorable Mention Award</b>	Melbourne, Australia Oct. 2024
<a href="#">AI-Powered Eyewear for Routine Facial Expression Analysis in Parkinson's Disease: Study Design and Goals</a> . Hwai Yin Ooi, Cheng Zhang, <b>Ke Li</b> , Jordan Narins, and Harini Sarva. <i>The International Congress of Parkinson's Disease and Movement Disorders</i> , 39 (suppl 1).	Sept. 2024
<a href="#">GazeTrak: Exploring Acoustic-based Eye Tracking on a Glass Frame</a> . <b>Ke Li</b> , Ruidong Zhang, Boao Chen, Siyuan Chen, Sicheng Yin, Saif Mahmud, Qikang Liang, François Guimbretière, and Cheng Zhang. In <i>Proceedings of the 30th Annual International Conference on Mobile Computing and Networking (ACM MobiCom '24)</i> , 497–512.	D.C., USA Nov. 2024
<a href="#">EyeEcho: Continuous and Low-power Facial Expression Tracking on Glasses</a> . <b>Ke Li</b> , Ruidong Zhang, Siyuan Chen, Boao Chen, Mose Sakashita, François Guimbretière, and Cheng Zhang. In <i>Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)</i> , Article 319, 1–24.	Honolulu, USA May 2024

<a href="#"><u>EchoWrist: Continuous Hand Pose Tracking and Hand-Object Interaction Recognition Using Low-Power Active Acoustic Sensing On a Wristband.</u></a> Chi-Jung Lee, Ruidong Zhang, Devansh Agarwal, Tianhong Catherine Yu, Vipin Gunda, Oliver Lopez, James Kim, Sicheng Yin, Boao Dong, <b>Ke Li</b> , Mose Sakashita, François Guimbretière, and Cheng Zhang. In <i>Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)</i> , Article 403, 1–21.	Honolulu, USA May 2024
<a href="#"><u>HPSpeech: Silent Speech Interface for Commodity Headphones.</u></a> Ruidong Zhang, Hao Chen, Devansh Agarwal, Richard Jin, <b>Ke Li</b> , François Guimbretière, and Cheng Zhang. In <i>Proceedings of the 2023 ACM International Symposium on Wearable Computers (ISWC '23)</i> , 60–65. <b>Best Paper Honorable Mention Award</b>	Cancún, Mexico Oct. 2023
<a href="#"><u>EchoNose: Sensing Mouth, Breathing and Tongue Gestures inside Oral Cavity using a Non-contact Nose Interface.</u></a> Rujia Sun, Xiaohe Zhou, Benjamin Steeper, Ruidong Zhang, Sicheng Yin, <b>Ke Li</b> , Shengzhang Wu, Sam Tilsen, François Guimbretière, and Cheng Zhang. In <i>Proceedings of the 2023 ACM International Symposium on Wearable Computers (ISWC '23)</i> , 22–26.	Cancún, Mexico Oct. 2023
<a href="#"><u>PoseSonic: 3D Upper Body Pose Estimation Through Egocentric Acoustic Sensing on Smartglasses.</u></a> Saif Mahmud, <b>Ke Li</b> , Guilin Hu, Hao Chen, Richard Jin, Ruidong Zhang, François Guimbretière, and Cheng Zhang. <i>Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '23)</i> 7, 3, Article 111, 28 pages.	Sept. 2023
<a href="#"><u>EchoSpeech: Continuous Silent Speech Recognition on Minimally-obtrusive Eyewear Powered by Acoustic Sensing.</u></a> Ruidong Zhang, <b>Ke Li</b> , Yihong Hao, Yufan Wang, Zhengnan Lai, François Guimbretière, and Cheng Zhang. In <i>Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23)</i> , Article 852, 1–18.	Hamburg, Germany Apr. 2023
<a href="#"><u>EarIO: A Low-power Acoustic Sensing Earable for Continuously Tracking Detailed Facial Movements.</u></a> <b>Ke Li</b> , Ruidong Zhang, Bo Liang, François Guimbretière, and Cheng Zhang. <i>Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. (IMWUT '22)</i> 6, 2, Article 62, 24 pages.	Jul. 2022
<a href="#"><u>Locating Everyday Objects using NFC Textiles.</u></a> Jingxian Wang, Junbo Zhang, <b>Ke Li</b> , Chengfeng Pan, Carmel Majidi, and Swarun Kumar. In <i>Proceedings of the 20th International Conference on Information Processing in Sensor Networks (IPSN '21)</i> , 15–30. <b>Best Paper Award &amp; Best Presentation Award</b>	Nashville, USA May 2021
<a href="#"><u>A Constant Factor Approximation for d-Hop Connected Dominating Set in 3-Dimensional Wireless Network.</u></a> <b>Ke Li</b> , Xiaofeng Gao, Fan Wu, and Guihai Chen. In <i>IEEE Transactions on Wireless Communications (TWC)</i> , vol. 18, no. 9, pp. 4357–4367, Sept. 2019.	Sept. 2019
<a href="#"><u>OLEC: A Machine-Learning-Based Energy-Efficient Clustering Algorithm to Prolong Network Lifespan for IoT in High-Dimensional Space.</u></a> <b>Ke Li</b> , Haowei Huang, Xiaofeng Gao, Fan Wu, and Guihai Chen. In <i>Proceedings of the 48th International Conference on Parallel Processing (ICPP '19)</i> , Article 105, 1–10.	Kyoto, Japan Aug. 2019
<a href="#"><u>μTouch: Enabling Accurate, Lightweight Micro Hand Gesture Sensing with Passive Magnets.</u></a> Siyuan Wang, <b>Ke Li</b> , Jike Wang, Jingyuan Huang, Cheng Zhang, Alanson P. Sample, and Dongyao Chen. <i>The 31st Annual International Conference on Mobile Computing and Networking (MobiCom '25)</i> . (Under Review)	Nov. 2025 (Expected)

## SERVICE

External Reviewer	2022 - Present
UbiComp '22 '23 '24, UIST '23, CHI '24 '25	

## TEACHING EXPERIENCES

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<b>INFO 4320/5321: Introduction to Rapid Prototyping and Physical Computing</b>	Fall '22 '23, Spring '23
<i>Teaching Assistant at Cornell University, Instructor: Prof. Cheng Zhang</i>	
<b>INFO 4120/6120: Ubiquitous Computing (Nominated for Outstanding Teaching Award)</b>	Fall '21
<i>Teaching Assistant at Cornell University, Instructor: Prof. Cheng Zhang</i>	

## HONORS & AWARDS

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

## EXTRACURRICULAR ACTIVITIES & LEADERSHIP

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<b>Development Program for Excellent Student of SJTU, Group Leader</b>	Apr. 2017 – Apr. 2018
<ul style="list-style-type: none"><li>Organized various activities, such as lectures, speech contests, volunteer programs, and summer social activities.</li><li>Awarded Outstanding Participant Title in the 2018 Summer Social Practice of SJTU (Top 2%).</li></ul>	
<b>Master Distinguished Lecture, SJTU, Director</b>	May. 2017 - Sept. 2018
<ul style="list-style-type: none"><li>Organized professional academic lectures and invited scholars for speeches, including 8 Nobel Prize Laureates.</li><li>Oversaw the entire process of lecture, including brand building, publicity, directing, reception and recognition.</li></ul>	