KE LI

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EDUCATION

Cornell University   Jun. 2021 - Aug. 2026 (Expected)

Ph.D. Student in Information Science, School 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 Human-Computer Interaction

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 Graduates from Universities in Shanghai **(Top 5%)**

Carnegie Mellon University (CMU)   Jul. 2019 - Sept. 2019

Research Assistant in Department of Electrical and Computer Engineering, Supervisor: Prof. Swarun Kumar

PUBLICATIONS

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, The Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '23). *(Accepted for Publication)*	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, The Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)/Ubicomp '22, Volume 6, Issue 2, Article 62 (July 2022), 24 pages.	Jul. 2022
Locating Everyday Objects using NFC Textiles, Jingxian Wang, Junbo Zhang, **Ke Li**, Chengfeng Pan, Carmel Majidi and Swarun Kumar, The 20th International Conference on Information Processing in Sensor Networks (IPSN '21). ***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, IEEE Transactions on Wireless Communications (TWC), vol. 18, no. 9, pp. 4357-4367, 2019.	Sept. 2019
QLEC: 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, The 48th International Conference on Parallel Processing (ICPP '19).	Kyoto, Japan Aug. 2019
EyeEcho: Continuous Facial Expression Tracking on Eyewears with Minimally-obtrusive Acoustic Sensing, **Ke Li**, Ruidong Zhang, Siyuan Chen, Boao Chen, François Guimbretière, and Cheng Zhang, The Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)/Ubicomp '23. *(Under Major Revision)*	May 2023 (Expected)
GazeTrak: Exploring Acoustic-based Eye Tracking on a Glass Frame, **Ke Li**, Ruidong Zhang, Boao Chen, Siyuan Chen, Sicheng Yin, Saif Mahmud, François Guimbretière, and Cheng Zhang, The International Conference on Mobile Computing and Networking (MobiCom '23). *(Under Review)*	Mar. 2023
PoseSonic: 3D Upper Body Pose Estimation Through Egocentric Acoustic Sensing on	Feb. 2023

Smartglasses, Saif Mahmud, <u>**Ke Li**</u>, Guilin Hu, Hao Chen, Richard Jin, Ruidong Zhang, François Guimbretière, and Cheng Zhang, The Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)/Ubicomp '23. *(Under Review)*	
<u>**EchoWrist: Continuous Hand Pose Tracking on a Low-Profile Wristband using Low-power Acoustic Sensing**</u>, Ruidong Zhang, Devansh Agarwal, Sicheng Yin, Boao Dong, <u>**Ke Li**</u>, Mose Sakashita, François Guimbretière, and Cheng Zhang, The Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)/Ubicomp '23. *(Under Review)*	Feb. 2023
<u>**Acoustic-based Authentication for Smart Glasses**</u>, To be Submitted to The 21st ACM Conference on Embedded Networked Sensor Systems (SenSys '23).	Jun. 2023 (Expected)
<u>**Towards Blinking Detection on a Glass Frame in the Wild**</u>, To be Submitted to The 27th Annual International Symposium on Wearable Computers (ISWC '23).	May 2023 (Expected)

TEACHING EXPERIENCES

INFO 4320/5321: Introduction to Rapid Prototyping and Physical Computing	Fall 2022, Spring 2023
Teaching Assistant at Cornell University, Instructor: Prof. Cheng Zhang	
INFO 4120/6120: Ubiquitous Computing *(Nominated for Outstanding Teaching Award)*	Fall 2021
Teaching Assistant at Cornell University, Instructor: Prof. Cheng Zhang	

HONORS & AWARDS

Nominated for a 2021-2022 Outstanding Teaching Award	May 2022
Honor bestowed on outstanding PhD teaching assistants in Information Science at Cornell	
Outstanding Graduates in Shanghai (Top 5%)	Jun. 2020
Honor bestowed on outstanding graduates from universities in Shanghai	
A-level Outstanding Scholarship of Shanghai Jiao Tong University (Top 1%)	Nov. 2019
Scholarship awarded to outstanding students at SJTU	
Tang Lixin Scholarship (Top 0.2%)	Oct. 2019
Scholarship founded by Mr. Tang Lixin and awarded to Top 60 students at SJTU	
National Scholarship*2 (3/158, 1/158)	Oct. 2018, 2019
Top scholarship awarded to undergraduates in China for their achievements in academics	
B-level Outstanding Scholarship of Shanghai Jiao Tong University*2 (Top 5%, Top 2%)	Nov. 2017, 2018
Scholarship awarded to outstanding students at SJTU	
Wen-Yuan Pan Scholarship (Top 5%)	Dec. 2017
Scholarship founded by Wen-Yuan Pan Foundation	

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

Development Program for Excellent Student of SJTU, *Group Leader*	Apr. 2017 – Apr. 2018

- 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.