**KE LI**

Cornell University, 107 Hoy Rd, Ithaca, NY 14853 | kl975@cornell.edu | [keli97.github.io](https://keli97.github.io/) | +1 607-262-2020

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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](https://www.scifilab.org/), **Special Committee Member**: Prof. [Deborah Estrin](https://destrin.tech.cornell.edu/) and Prof. [Rajalakshmi Nandakumar](https://infosci.cornell.edu/~rajalakshmi/) * **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*](https://swarunkumar.com/) | | | | | | |  |
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| **PUBLICATIONS** | | | | | | | |
| [**EchoSpeech: Continuous Silent Speech Recognition on Minimally-obtrusive Eyewear Powered by Acoustic Sensing**](https://doi.org/10.1145/3544548.3580801), 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**](https://dl.acm.org/doi/10.1145/3534621), **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**](https://dl.acm.org/doi/10.1145/3412382.3458254), 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**](https://ieeexplore.ieee.org/document/8765348), **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**](https://dl.acm.org/citation.cfm?id=3337926), **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 Smartglasses**, Saif Mahmud, **Ke Li**, 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)* | | | | | Feb. 2023 | | |
| **EchoWrist: Continuous Hand Pose Tracking on a Low-Profile Wristband using Low-power Acoustic Sensing**,Ruidong Zhang, Devansh Agarwal, Sicheng Yin, Boao Dong, **Ke Li**, 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 | | |
| **Acoustic-based Authentication for Smart Glasses**, To be Submitted to The 21st ACM Conference on Embedded Networked Sensor Systems (SenSys ’23). | | | | | Jun. 2023 (Expected) | | |
| **Towards Blinking Detection on a Glass Frame in the Wild**, To be Submitted to The 27th Annual International Symposium on Wearable Computers (ISWC ’23). | | | | | May 2023 (Expected) | | |
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| **TEACHING EXPERIENCES** | | | | | | | |
| **INFO 4320/5321: Introduction to Rapid Prototyping and Physical Computing**  *Teaching Assistant at Cornell University, Instructor: Prof. Cheng Zhang* | | | Fall 2022, Spring 2023 | | | | |
| **INFO 4120/6120: Ubiquitous Computing** *(Nominated for Outstanding Teaching Award)*  *Teaching Assistant at Cornell University, Instructor: Prof. Cheng Zhang* | | | | Fall 2021 | | | |
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| **HONORS & AWARDS** | | | | | | | |
| **Nominated for a 2021-2022 Outstanding Teaching Award**  *Honor bestowed on outstanding PhD teaching assistants in Information Science at Cornell*  **Outstanding Graduates in Shanghai (Top 5%)**  *Honor bestowed on outstanding graduates from universities in Shanghai*  **A-level Outstanding Scholarship of Shanghai Jiao Tong University (Top 1%)**  *Scholarship awarded to outstanding students at SJTU*  **Tang Lixin Scholarship (Top 0.2%)**  *Scholarship founded by Mr. Tang Lixin and awarded to Top 60 students at SJTU*  **National Scholarship\*2 (3/158, 1/158)**  *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%)**  *Scholarship awarded to outstanding students at SJTU*  **Wen-Yuan Pan Scholarship (Top 5%)**  *Scholarship founded by Wen-Yuan Pan Foundation* | | | | | May 2022  Jun. 2020  Nov. 2019  Oct. 2019  Oct. 2018, 2019  Nov. 2017, 2018  Dec. 2017 | | |
| **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. | | | | | | | |