

KE LI

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EDUCATION

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

PUBLICATIONS

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| <u>GazeTrak: Exploring Acoustic-based Eye Tracking on a Glass Frame</u> , 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 '24). (Conditionally Accepted) | Nov. 2023 |
| <u>HPSpeech: Silent Speech Interface for Commodity Headphones</u> , Ruidong Zhang, Hao Chen, Devansh Agarwal, Richard Jin, Ke Li , François Guimbretière, and Cheng Zhang, The Proceedings of the International Symposium on Wearable Computers (ISWC '23), 60-65. Best Paper Honorable Mention Award | Cancún, Mexico Oct. 2023 |
| <u>EchoNose: Sensing Mouth, Breathing and Tongue Gestures inside Oral Cavity using a Non-contact Nose Interface</u> , Rujia Sun, Xiaohe Zhou, Benjamin Steeper, Ruidong Zhang, Sicheng Yin, Ke Li , Shengzhang Wu, Sam Tilsen, François Guimbretière, and Cheng Zhang, The Proceedings of the International Symposium on Wearable Computers (ISWC '23), 22-26. | Cancún, Mexico Oct. 2023 |
| <u>PoseSonic: 3D Upper Body Pose Estimation Through Egocentric Acoustic Sensing on Smartglasses</u> , 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, Volume 7, Issue 3, Article 111 (September 2023), 28 pages. | Sept. 2023 |
| <u>EchoSpeech: Continuous Silent Speech Recognition on Minimally-obtrusive Eyewear Powered by Acoustic Sensing</u> , 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), Article 852, 1–18. | Hamburg, Germany Apr. 2023 |
| <u>EarIO: A Low-power Acoustic Sensing Earable for Continuously Tracking Detailed Facial Movements</u> , 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 |
| <u>Locating Everyday Objects using NFC Textiles</u> , Jingxian Wang, Junbo Zhang, Ke Li , Chengfeng Pan, Carmel Majidi and Swarun Kumar, The 20th International Conference on | Nashville, USA May 2021 |

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| Information Processing in Sensor Networks (IPSN '21). Best Paper & Best Presentation Award | |
| <u>A Constant Factor Approximation for d-Hop Connected Dominating Set in 3-Dimensional Wireless Network</u> , 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 |
| <u>OLEC: A Machine-Learning-Based Energy-Efficient Clustering Algorithm to Prolong Network Lifespan for IoT in High-Dimensional Space</u> , Ke Li , Haowei Huang, Xiaofeng Gao, Fan Wu and Guihai Chen, The 48th International Conference on Parallel Processing (ICPP '19). | Kyoto, Japan Aug. 2019 |
| <u>EyeEcho: Continuous and Low-power Facial Expression Tracking on Glasses</u> , Ke Li , Ruidong Zhang, Siyuan Chen, Boao Chen, Mose Sakashita, François Guimbretière, and Cheng Zhang, The Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24). (<i>Under Revision</i>) | May 2024 (Expected) |
| <u>EchoWrist: Continuous Hand Pose Tracking and Hand-Object Interaction Recognition Using Low-Power Active Acoustic Sensing On a Wristband</u> , 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, The Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24). (<i>Under Revision</i>) | May 2024 (Expected) |
| <u>Ring-a-Pose: A Ring for Continuous Hand Pose Tracking</u> , 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, The Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24). (<i>Under Revision</i>) | May 2024 (Expected) |
| <u>ActSonic: A Low-power Smart Glasses that Tracks Everyday Activities</u> , Saif Mahmud, Vineet A Parikh, Qikang Liang, Ke Li , Ruidong Zhang, Ashwin Ajit, Vipin Gunda, Devansh Agarwal, François Guimbretière, and Cheng Zhang, The ACM International Conference on Mobile Systems, Applications, and Services (MobiSys '24). (<i>Under Review</i>) | Jun. 2024 (Expected) |

SERVICE

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

TEACHING EXPERIENCES

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| 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> | |

HONORS & AWARDS

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| 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 Graduates 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> | |

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| 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> | |

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

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| 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 |
| <ul style="list-style-type: none"> 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. | |