

Xingyu Bruce Liu

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Education

- 2020 – now 📖 **University of California, Los Angeles**
Ph.D. Student, Electrical and Computer Engineering, UCLA HCI Lab
Advised by Professor Xiang ‘Anthony’ Chen
- 2020 – 2022 📖 **University of California, Los Angeles**
M.S. Electrical and Computer Engineering, UCLA HCI Lab
Advised by Professor Xiang ‘Anthony’ Chen
Distinguished Master’s Thesis Research Award, UCLA ECE
Human-AI Systems for Video Accessibility
- 2023 summer 📖 **The University of Tokyo**
Visiting Ph.D. Student, Computer Science, Igarashi Lab
Advised by Professor Takeo Igarashi
- 2016 – 2020 📖 **Carnegie Mellon University**
B.S. Statistics and Machine Learning, Human-Computer Interaction
Minor in Computer Science
with University Honors



Publications

Peer-reviewed Publications

- [1] **Xingyu Bruce Liu**, Nick Jiahao Li, David Kim, Xiang ‘Anthony’ Chen, and Ruofei Du. 2024. Human I/O: Towards a Unified Approach to Detecting Situational Impairments. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI ’24)*. ACM. 🔗 DOI: 10.1145/3613904.3642065.
- [2] Ruofei Du, Na Li, Jing Jin, Michelle Carney, Scott Miles, Maria Kleiner, Xiuxiu Yuan, Yinda Zhang, Anuva Kulkarni, **Xingyu Bruce Liu**, Ahmed Sabie, Sergio Escolano, Abhishek Kar, Ping Yu, Ram Iyengar, Adarsh Kowdle, and Alex Olwal. 2023. Rapsai: Accelerating Machine Learning Prototyping of Multimedia Applications Through Visual Programming. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI ’23)*. ACM. 🔗 DOI: 10.1145/3544548.3581338.
🏆 **Best Paper Honorable Mention.**
- [3] **Xingyu Bruce Liu**, Vladimir Kirilyuk, Xiuxiu Yuan, Alex Olwal, Peggy Chi, Xiang ‘Anthony’ Chen, and Ruofei Du. 2023. Visual Captions: Augmenting Verbal Communication With On-the-Fly Visuals. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI ’23)*. ACM. 🔗 DOI: 10.1145/3544548.3581566.
- [4] **Xingyu Bruce Liu***, Joanne Leong*, Yuanyang Teng*, Hanseul Jun, Sven Kratz, Yu Jiang Tham, Andrés Monroy-Hernández, Brian A. Smith, and Rajan Vaish. 2023. Social Wormholes: Exploring Preferences and Opportunities for Distributed and Physically-Grounded Social Connections. In *Proceedings of the 26th ACM Conference On Computer-Supported Cooperative Work And Social Computing (CSCW ’23)*. ACM.

- [5] **Xingyu Bruce Liu**, Ruolin Wang, Dingzeyu Li, Xiang ‘Anthony’ Chen, and Amy Pavel. 2022. CrossA11y: Identifying Video Accessibility Issues via Cross-Modal Grounding. In *Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology* (UIST ’22). ACM, Bend, OR, USA.  DOI: 10.1145/3526113.3545703. 🏆 **Best Paper Award**.
- [6] **Xingyu Liu**, Patrick Carrington, Xiang ‘Anthony’ Chen, and Amy Pavel. 2021. What Makes Videos Accessible to Blind and Visually Impaired People? In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems* (CHI ’21). ACM, Yokohama, Japan.  DOI: 10.1145/3411764.3445233.
- [7] Cole Gleason, Amy Pavel, **Xingyu Liu**, Patrick Carrington, Lydia B. Chilton, and Jeffrey P. Bigham. 2019. Making Memes Accessible. In *The 21st International ACM SIGACCESS Conference on Computers and Accessibility* (ASSETS ’19). ACM, Pittsburgh, PA, USA.  DOI: 10.1145/3308561.3353792.

Late-Breaking Works, Poster, Demos

- [8] **Xingyu Bruce Liu**, Vladimir Kirilyuk, Xiuxiu Yuan, Peggy Chi, Alex Olwal, Xiang ‘Anthony’ Chen, and Ruofei Du. 2023. Experiencing Visual Captions: Augmented Communication with Real-time Visuals using Large Language Models. In *Adjunct Proceedings of the 36th Annual ACM Symposium on User Interface Software and Technology* (UIST ’23 Adjunct). ACM, New York, NY, USA.  DOI: 10.1145/3586182.3615978.
- [9] **Xingyu Bruce Liu**, Jun Zhang, Leonardo Ferrer, Susan Xu, Vikas Bahirwani, Boris Smus, Alex Olwal, and Ruofei Du. 2023. Modeling and Improving Text Stability in Live Captions. In *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems* (CHI EA ’23). ACM.  DOI: 10.1145/3544549.3585609.





Patents

- [10] Bing Liu and **Xingyu Liu**. 2020. Method, device and computer product for predicting disk failure. Patent No. US20200233587A1, CN111459692A. (July 2020).
- [11] Bing Liu and **Xingyu Liu**. 2020. Method, device, and computer program product for facilitating prediction of disk failure. Patent No. US20200133758A1, CN111104293A. (April 2020).



Awards and Honors

2023	🏆 Amazon Ph.D. Fellowship, 2023
	🏆 Best Paper Honorable Mention (top 5%), CHI 2023
	🏆 ED Rice Outstanding Master Student Award, UCLA Engineering School
2022	🏆 Best Paper Award (top 3), UIST 2022
	🏆 Distinguished Master’s Thesis Research Award, UCLA ECE Department.
2020-2022	🏆 Departmental Fellowship, UCLA ECE Department, \$65,000.
2018	🏆 Best Social Impact Award, TartanHacks (40+ teams).
2017	🏆 First Place, Most Technical Award, HackNY (20+ teams).
2016	🏆 Mizuho Scholar, Mizuho & Wing Hang Bank Scholarship and Charity Funds.
2016 – 2020	🏆 Dean’s List, Carnegie Mellon University.

Professional Experience

- 2022 spring/summer  **Google**, Student Researcher.
Augmented language and contextual computing.
Four papers published at CHI and UIST.
Advised by Dr. Ruofei Du.
- 2021 summer  **Snap Research**, Research Intern.
AR-based physical connections for remote awareness between friends.
Paper published at CSCW.
Advised by Dr. Rajan Vaish and Dr. Brian A. Smith.
- 2019 – 2020  **CMU Accessibility Lab**, Research Assistant.
Making social media content accessible.
Two papers published at ASSETS and CHI.
Advised by Prof. Amy Pavel, Prof. Jeffrey Bigham, and Prof. Patrick Carrington.
- 2018 summer  **Dell EMC**, Machine Learning Intern.
ML-based disk failure prediction with SMART and BMS log data.
Two US patents published.

Service

- 2020 – Now  **Reviewer**
CHI 2021-2024, UIST 2020-2023, CSCW 2020-2021, ICML 2023, IMWUT 2023
-  **Special Recognitions as a Reviewer**
CHI 2022, CHI 2023 x 2, CHI 2024, IMWUT 2023