Xingyu “Bruce” Liu

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Education

2020 – now **Ph.D. Student, University of California, Los Angeles**
Electrical and Computer Engineering, UCLA HCI Lab
Advised by Xiang “Anthony” Chen
MS Thesis: *Human-AI Systems for Video Accessibility*

2016 – 2020 **B.S. in Statistics and Machine Learning, Carnegie Mellon University**
Additional Major in Human-Computer Interaction
Minor in Computer Science
with University Honors

Publications

Peer-reviewed Publications

[1] 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**.

[2] **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.

[3] **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 ’23). ACM. DOI: 10.1145/3544549.3585609.

[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* (Conditionally Accepted to 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) Article 43. Association for Computing Machinery, Bend, OR, USA, 14 pages. ISBN: 9781450393201. 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) Article 272. Association for Computing Machinery, Yokohama, Japan, 14 pages. ISBN: 9781450380966. 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). Association for Computing Machinery, Pittsburgh, PA, USA, 367–376. DOI: 10.1145/3308561.3353792.

Under Review

[8] **Xingyu Liu**, Ruolin Wang, Xiang 'Anthony' Chen, and Amy Pavel. 2022. Understanding How Blind and Visually Impaired People Leverage Accessibility Metrics In Practice. *Under Review*.

Patents

[9] Bing Liu and **Xingyu Liu**. 2020. Method, device and computer product for predicting disk failure. Patent No. US20200233587A1, CN111459692A. (July 2020).

[10] 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	**Best Paper Honorable Mention** (top 5%), CHI 2023
	ED Rice Outstanding Master Student Award, UCLA Engineering School
2022	**Best Paper Award** (top 3 of 367 submissions), 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, $1,000.
2016 – 2020	**Dean's List**, Carnegie Mellon University.

Professional Experience

2022 spring/summer — **Google Labs,** Student Researcher.
Augmented language.
Advised by Dr. Ruofei Du.

2021 summer — **Snap Research,** Research Intern.
AR-based physical connections for remote awareness between friends.
Paper in submission.
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 – present **Reviewer**
CHI 2021-2023, UIST 2020-2022, CSCW 2020-2021