Xingyu Bruce Liu

✉ xingyuliu@ucla.edu   🐦 @liu_xingyu
🌐 http://liubruce.me/

Education

2020 – now   🔖 **University of California, Los Angeles**
Ph.D. Candidate, UCLA HCI Lab
Advised by Professor Xiang 'Anthony' Chen

2020 – 2022   🔖 **University of California, Los Angeles**
M.S. Electrical and Computer Engineering
Advised by Professor Xiang 'Anthony' Chen
Distinguished Master's Thesis Research Award, UCLA ECE

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**, Mira Dontcheva, and Dingzeyu Li. 2026. A Text-Native Interface for Generative Video Authoring. In *Submission* (Under Review).

[2] **Xingyu Liu**. 2025. Thought as a Substrate in Human-AI Interaction. In *UIST 2025 Doctoral Symposium* (UIST '25). Association for Computing Machinery, Busan, Republic of Korea. 🔗 DOI: 10.1145/3746058.3758466.

[3] Ruolin Wang, **Xingyu Liu**, Biao Wang, Wayne Zhang, Ziqian Liao, Ziwen Li, Amy Pavel, and Xiang 'Anthony' Chen. 2025. CoSight: Exploring Viewer Contributions to Online Video Accessibility Through Descriptive Commenting. In *Proceedings of the 2025 ACM Symposium on User Interface Software and Technology* (UIST '25). Association for Computing Machinery, Busan, Republic of Korea. 🔗 DOI: 10.1145/3746059.3747747.

[4] **Xingyu Bruce Liu**, Shitao Fang, Weiyan Shi, Chien-Sheng Wu, Takeo Igarashi, and Xiang 'Anthony' Chen. 2025. Proactive Conversational Agents with Inner Thoughts. In *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems* (CHI '25). Association for Computing Machinery, Yokohama, Japan. 🔗 DOI: 10.1145/3706598.3713760.

[5] **Xingyu Bruce Liu**, Jiahao Nick 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.
🏅 **Best Paper Honorable Mention**.

[6] 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**.

[7] **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`.

[8] **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.

[9] **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**.

[10] **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`.

[11] 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, Posters, Demos

[12] **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`.

[13] **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

[14] Hanseul Jun, Sven Kratz, Joanne Leong, **Xingyu Liu**, Andrés Monroy-Hernández, Brian Anthony Smith, Yu Jiang Tham, and Rajan Vaish. 2025. Snapshot messages for indicating user state. Patent No. US12363419. (July 2025).

[15] Ruofei Du and **Xingyu Liu**. 2024. Determining Communication Channel Based on Limitation of User. Application No. US20240412495. (December 2024).

[16] Ruofei Du and **Xingyu Liu**. 2024. Generating an Avatar Expression. Application No. US20240265605. (August 2024).

[17] Ruofei Du, Alex Olwal, and **Xingyu Liu**. 2024. System and Method for Generating Visual Captions. Application No. US20240330362. (October 2024).

[18] Hanseul Jun, Sven Kratz, Joanne Leong, **Xingyu Liu**, Andrés Monroy-Hernández, Brian Anthony Smith, Yu Jiang Tham, and Rajan Vaish. 2024. Scan-based messaging for electronic eyewear devices. Patent No. US12149490. (November 2024).

[19] Hanseul Jun, Sven Kratz, Joanne Leong, **Xingyu Liu**, Andrés Monroy-Hernández,
      Brian Anthony Smith, Yu Jiang Tham, and Rajan Vaish. 2024. Social connection through distributed and
      connected real-world objects. Patent No. US12072489. (August 2024).

[20] Bing Liu and **Xingyu Liu**. 2021. Method, device and computer product for predicting disk failure.
      Patent No. US10996861. (May 2021).

[21] Bing Liu and **Xingyu Liu**. 2021. Method, device, and computer program product for facilitating
      prediction of disk failure. Patent No. US11036572. (June 2021).

Awards and Honors

2025	**Dissertation Year Award**, UCLA
2024	**Best Paper Honorable Mention** (top 5%), CHI 2024
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

2025 summer	**Adobe Research,** Research Scientist Intern. Novel interface for generative video authoring. Advised by Dr. Dingzeyu Li and Dr. Mira Dontcheva.
2024 summer	**Meta Reality Labs,** Research Scientist Intern. Novel human-LLM interaction paradigm. Advised by Dr. Mark Parent and Dr. Ben Lafreniere.
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.

Professional Experience (continued)

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   **Program Committee**
CHI 2025, 2026

Video Presentation Chair
CHI 2025

Reviewer
CHI 2021-2026, UIST 2020-2025, CSCW 2020, 2021, 2025, ICML 2023, IMWUT 2023

Special Recognitions as a Reviewer
CHI 2022, CHI 2023 x 2, CHI 2024, UIST 2024, IMWUT 2023