

# Xingyu Bruce Liu

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🐦 @liu\_xingyu

🌐 <http://liubruce.me/>

## Education

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- 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

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### 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. CrossAny: 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

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| 2025        | 📌 | <b>Dissertation Year Award</b> , UCLA  |
| 2024        | 📌 | <b>Best Paper Honorable Mention</b> (top 5%), CHI 2024                         |
| 2023        | 📌 | <b>Amazon Ph.D. Fellowship</b> , 2023  |
|             | 📌 | <b>Best Paper Honorable Mention</b> (top 5%), CHI 2023                         |
|             | 📌 | <b>ED Rice Outstanding Master Student Award</b> , UCLA Engineering School      |
| 2022        | 📌 | <b>Best Paper Award</b> (top 3), UIST 2022                                     |
|             | 📌 | <b>Distinguished Master's Thesis Research Award</b> , UCLA ECE Department.     |
| 2020-2022   | 📌 | <b>Departmental Fellowship</b> , UCLA ECE Department, \$65,000.                |
| 2018        | 📌 | <b>Best Social Impact Award</b> , TartanHacks (40+ teams).                     |
| 2017        | 📌 | <b>First Place, Most Technical Award</b> , HackNY (20+ teams).                 |
| 2016        | 📌 | <b>Mizuho Scholar</b> , Mizuho & Wing Hang Bank Scholarship and Charity Funds. |
| 2016 – 2020 | 📌 | <b>Dean's List</b> , Carnegie Mellon University.                               |

## Professional Experience

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| 2025 summer        | 📌 | <b>Adobe Research</b> , Research Scientist Intern.<br>Novel interface for generative video authoring.<br>Advised by Dr. Dingzeyu Li and Dr. Mira Dontcheva.                                      |
| 2024 summer        | 📌 | <b>Meta Reality Labs</b> , Research Scientist Intern.<br>Novel human-LLM interaction paradigm.<br>Advised by Dr. Mark Parent and Dr. Ben Lafreniere.   |
| 2022 spring/summer | 📌 | <b>Google</b> , Student Researcher.<br>Augmented language and contextual computing.<br>Four papers published at CHI and UIST.<br>Advised by Dr. Ruofei Du.                                       |
| 2021 summer        | 📌 | <b>Snap Research</b> , Research Intern.<br>AR-based physical connections for remote awareness between friends.<br>Paper published at CSCW.<br>Advised by Dr. Rajan Vaish and Dr. Brian A. Smith. |

## Service

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2020 – Now

■ **Associate Chair**

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