

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 Professor Xiang ‘Anthony’ Chen

MS Thesis: *Human-AI Systems for Video Accessibility*

2023 summer

📖 **Visiting Ph.D. Student, The University of Tokyo**

Computer Science, Igarashi Lab

Advised by Professor Takeo Igarashi

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. 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) 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.





Patents

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

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|-------------|---|
| 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 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

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| 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 2020-2023, CSCW 2020-2021, ICML 2023