

# Xingyu “Bruce” Liu

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## Education

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- 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

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### 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.
- [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**, 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.**
- [5] **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.
- [6] 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

- [7] **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*.

- [8] **Xingyu Liu\***, Joanne Leong\*, Hanseul Jun, Sven Kratz, Yu Jiang Tham, Andrés Monroy-Hernández, Brian A. Smith, and Rajan Vaish. 2022. Wormholes: Augmenting Everyday Object as Connection Endpoints for Remote Awareness. *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

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|-------------|---|---|
| 2023        | 🏆 | <b>ED Rice Outstanding Master Student Award</b> , UCLA Engineering School               |
| 2022        | 🏆 | <b>Best Paper Award</b> , 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, \$1,000. |
| 2016 – 2020 | 🏆 | <b>Dean's List</b> , Carnegie Mellon University.  |

## Professional Experience

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| 2022 spring/summer | 🏆 | <b>Google Labs</b> , Student Researcher.<br>Augmented language.<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 in submission.<br>Advised by Dr. Rajan Vaish and Dr. Brian A. Smith.                                |
| 2019 – 2020        | 🏆 | <b>CMU Accessibility Lab</b> , Research Assistant.<br>Making social media content accessible.<br>Two papers published at ASSETS and CHI.<br>Advised by Prof. Amy Pavel, Prof. Jeffrey Bigham, and Prof. Patrick Carrington. |
| 2018 summer        | 🏆 | <b>Dell EMC</b> , Machine Learning Intern.<br>ML-based disk failure prediction with SMART and BMS log data.<br>Two US patents published.  |

## Service

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| 2020 – present | 🏆 | <b>Reviewer</b><br>CHI 2021-2023, UIST 2020-2022, CSCW 2020-2021 |
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