

Education

09/2020 – Present **University of Michigan**
Ann Arbor, MI Bachelor of Science in Computer Science
Bachelor of Science in Mathematics
GPA: 3.9 / 4.0
Advisor: Dr. Anhong Guo

Publications

- 05/2023 - 09/2023 ImageExplorer Deployment: Understanding Text-Based and
Ann Arbor, MI Touch-Based Image Exploration in the Wild. **A. Xu**, M. Cai*, D. Hou*, R.
Chang, A. Guo (*In Submission to CHI 2024*)
- Worked on a deployment project to study how blind and visually-impaired people consume image descriptions in real life.
 - Released an iOS app, ImageExplorer that provides image descriptions in textual and touch-based interfaces.
 - Built a dashboard to visualize users' usage data and quantitatively analyzed user data to understand users' interaction with the app.
- 05/2023 - Present Deploying VizLens: Characterizing User Needs, Preferences, and
Ann Arbor, MI Challenges of Physical Interfaces Usage in the Wild. **A. Xu**, M. Qazwini,
C. Liang, A. Guo (*Accepted by ASSETS 2024 Poster & Demo*)
- Deployed an iOS mobile app, Vizlens that helps blind and visually-impaired people use flat, inaccessible interfaces.
 - Collected and analyzed users' usage data to study how BVI users interact with those interfaces in real life to inform future assistive technology design.
- 05/2022 – Present ProgramAlly: An End-User Programming System for Visual Information
Ann Arbor, MI Filtering for Blind and Visually Impaired People. J. Herskovitz, **A. Xu**, C.
Zheng, A. Guo. (*In preparation for UIST 2024*)
- Worked on a project that enables BVI people to DIY short programs to access visual information as needed by applying end-user programming onto AI-based assistive technologies.
 - Designed and implemented AI models pipeline, block-based end-user programming module and multi-modal creation module of the system.
- 01/2021 – 08/2022 Hacking, Switching, Combining: Supporting Bespoke Design by Blind
Ann Arbor, MI and Visually Impaired People. J. Herskovitz, **A. Xu**, R. Alharbi, A. Guo.
(*Accepted by CHI 2023*)
- Assisted with a research project to interview blind people on their experiences tinkering with assistive technology, and their visions for DIY assistive technology in the future.

- Worked to design an interview protocol for 12 blind individuals.
- Performed a thematic analysis of interview data, using qualitative coding and affinity diagramming techniques.

Research Experience

- 01/2021 – Present* **Human-AI Lab, University of Michigan**
Ann Arbor, MI Undergraduate Researcher
 Advised by Professor Anhong Guo
- 09/2020 - 04/2021* **Systems Imaging & Bioinformatics Lab, University of Michigan**
Ann Arbor, MI Research Assistant
 Advised by Professor Arvind Rao

Work Experience

- 12/2020 – 04/2021* **ByteDance**
Beijing, China Product Operation Intern
- Collaborated with ML engineers, product managers and 30+ freelancers on data labeling to improve the product's AI accuracy

Awards

- Winter 2020 – Present* **University Honors**
 UM Students who earned a 3.5 grade point during a term
- 03/2022* **James B. Angell Scholar**
 UM Students who achieve an “A” record for two or more consecutive terms

Presentations & Talks

- Nov 2023* **Michigan AI Symposium**
 ImageExplorer Deployment: Understanding Text-Based and Touch-Based Image Exploration in the Wild.
- Nov 2023* **Michigan AI Symposium**
 Deploying VizLens: Characterizing User Needs, Preferences, and Challenges of Physical Interfaces Usage in the Wild.
- Oct 2022* **UM CSE National Advisory Board Undergraduate Student Research Poster Presentation**
 ProgramAlly: Understanding and Supporting DIY Assistive Technology Design by Blind People

Teaching

09/2022-04/2023 **Instructional Aide, UM EECS 493 User Interface**

- Lead weekly discussions; held weekly office hours to answer student questions
- Helped to redesign course content; conducted four 1-1 interviews and led to creat interview dataset for the final project