

I have actively advanced diversity and equity through my service, mentoring, and research efforts. My significant contributions to accessibility include **serving as the Accessibility Chair for CHI 2023 and being the leader of the Accessibility Chairs for CHI 2024**, where I led initiatives to make this largest Human-Computer Interaction (HCI) conference fully inclusive. I am also a member of ACM AccessSIGCHI¹, the HCI accessibility committee, and previously served as a Committee Member of the ACM SIGGRAPH Research Development Committee --- DEI and Accessibility² in Computer Graphics to continuously improve the accessibility for both communities. Additionally, I have **organized both local and international events to facilitate communication and collaboration among students from diverse backgrounds**. My extensive **teaching and mentoring experience across five countries and three continents** has deepened my understanding of students from various cultural, gender, and sexual orientations, enabling me to create inclusive environments that respect and support all students.

ACCESSIBILITY SERVICE

Accessibility Chair. Many research events unintentionally exclude individuals due to accessibility challenges. I believe that making academic conferences inclusive for everyone, regardless of their unique needs, is essential for equitable access to research communities and can significantly enhance the diversity of the field. This conviction led me to prioritize service roles focused on improving inclusivity for academic conferences.

I served as the Accessibility Co-Chair at CHI 2023, held in Hamburg, Germany, and led the Accessibility Chair team for CHI 2024, held in Honolulu, USA. CHI is the largest Human-Computer Interaction conference, attracting over 4,000 attendees annually, with around 100 individuals submitting special requests for accessibility needs. In this role, I aimed to ensure that the conferences were accessible to all participants.

I reached out to each attendee with accessibility needs to understand their requirements and led the accessibility team to make the necessary arrangements. For example, for hearing-impaired attendees, we coordinated with the event execution team to request closed captioning and sign language interpreters, organized the schedules of the interpreters based on attendees' needs, and reported the associated financial expenses to the CHI committee and ACM to secure appropriate budgets. For blind and low-vision attendees, we organized an orientation and venue walk-through and assigned student volunteers to assist them throughout the conference. In 2023, before the conference, I conducted an onsite visit to ensure that all accessibility features—such as Braille labels, wheelchair-accessible routes, seating areas, and accessible restrooms—were in place. I assessed the accessibility of routes and rooms by walking from the conference venue to recommend hotels and provided detailed hotel accessibility information to relevant attendees.

Accessibility Writing Guidelines. In collaboration with Professor Garreth Tigwell³, we have drafted the guidelines for "Disability Semantics in Academic Writing" specifically for the HCI community, as a part of the contribution to AccessSIGCHI. It is a one-page document that provides a concise overview of key considerations for discussing accessibility and disability in academic work, offering clear guidance on appropriate terminology for various disabilities, including vision, hearing, mobility, motor/dexterity, and cognitive impairments. Unlike more comprehensive resources, such as those from SIGACCESS, our guide is designed for quick reference, providing an accessible introduction for individuals seeking a brief yet informative resource.

Program Committee Member, ASSETS 2024 Experience Reports I was a Program Committee Member for the ASSETS 2024 Experience Reports, where I reviewed submissions focused on the needs of people with disabilities, as well as those of caregivers and educators. These reports are invaluable for motivating research in accessible and assistive

¹ <https://accesssigchi.com/>

² <https://research.siggraph.org/teams/dei-and-accessibility/>

³ <https://www.garrethtigwell.com/>

technologies. They provide first-hand insights into the experiences of individuals with disabilities, highlighting the challenges and opportunities in this field that are often difficult for researchers without direct experience to obtain.

COMMUNITY BUILDING

Local Research Community. I co-organized the Doctoral Symposium for the European Laboratory for Learning and Intelligent Systems (ELLIS). I invited four distinguished keynote speakers from various European countries to Finland, managed their schedules, and helped develop the symposium program. The event attracted over 400 doctoral students in Computer Science from across Europe, encouraging collaboration and knowledge exchange within the European Computer Science research community.

In addition, I co-organized and served as the poster chair for HelsinCHI, an event aimed at introducing students to the HCI research groups in Finland and promoting HCI research within the country. We aimed to increase awareness of HCI in Finland and provide a platform for students to engage with leading researchers in the HCI field.

International Research Community. Compared to North America, European research is less accessible to Chinese students, partly due to language barriers and limited exposure to these academic networks. Additionally, Human-Computer Interaction (HCI) is a relatively underrepresented field in China, with most universities offering only few, if any, courses on the subject. Recognizing these challenges, two fellow students from the UK and Austria and I established a platform aimed at introducing various HCI topics and promoting European HCI research groups to Chinese students.

Through our platform, we regularly publish articles that explain key HCI concepts and share information about academic and Ph.D. opportunities in Europe. To further support this effort, we organize monthly Zoom seminars, where Ph.D. students from various European HCI groups discuss their research and share insights into living and studying in different European countries. Our platform has attracted approximately 2,800 subscribers, significantly increasing the visibility of European HCI research among Chinese students.

MENTORING EXPERIENCE

Teaching and Mentoring in Different Countries. I have had 13 semesters of teaching experience across five countries – Finland, Germany, the USA, Canada, and China. This international experience has deepened my understanding of the diverse cultural, social, and educational backgrounds that students bring to the classroom. Additionally, I have mentored 12 undergraduate and master's students from seven different countries, including six female students and one LGBTQ+ student. In my mentoring, I prioritize creating an inclusive and supportive environment tailored to each student's unique background and aspirations. For example, I have adapted my teaching methods to address the varying educational systems and cultural norms that my students have encountered in their academic journeys. I am committed to creating an environment where all students feel valued and empowered to achieve their goals, regardless of their gender, sexual orientation, or cultural background.

Mentoring for Underrepresented Genders. I have actively contributed to promoting diversity in technology and research through my involvement as a graduate mentor for Technica⁴, the world's largest hackathon for underrepresented genders, in both 2018 and 2019. During these events, I designed small research projects, allowing the students I mentored to engage directly with hands-on technology work and gain experience in research practices.

Additionally, I served as a graduate mentor for two years with the Maryland Center for Women in Computing (MCWIC) Peer Mentoring Program. Through this role, I provided guidance and support to students, helping them navigate their academic and professional journeys while building a sense of community and belonging within the field of computing.

⁴ <https://2018.gotechnica.org/>

ACCESSIBILITY RESEARCH

I collaborated on a research project [1] to advance accessibility testing by developing a system that interprets manual test instructions given in natural language—such as “Search for a show using VoiceOver”—and uses large language models (LLMs) combined with pixel-based UI understanding models to execute these tests and produce navigable videos. This tool identifies accessibility issues on mobile devices, like text size discrepancies with the Large Text setting, to support quality assurance (QA) testers. Feedback from accessibility QA professionals has confirmed that the tool integrates effectively with their manual processes and is highly valuable. I envision future applications of LLMs in accessibility testing, including assisting novice developers by creating realistic simulations of accessibility features in their apps and improving natural language automation systems for broader testing applications.

PERSONAL EXPERIENCE

I was born with a broken spine that resulted in limited control of my right side and no sensation in my feet. As a person with physical disabilities, I spent six years in a special needs class until, at age 12, I was given an opportunity to start receiving mainstream education. I am deeply grateful for the support and opportunities provided by others throughout my life, which have enabled me to reach where I am today. My goal is to pass on this kindness by creating opportunities to support and uplift younger students. In 2014, I became a teaching volunteer in one of the poorest regions of China, where I taught mathematics in an elementary school and physics in a middle school. Later, for seven years, I used my saved PhD stipend, scholarships, and internship salary to fully cover the living expenses and tuition of a student who lost her father in an accident, supporting her until she completed her undergraduate studies.

FUTURE

Looking ahead, I am committed to using my experience and passion for diversity and accessibility to drive meaningful change in the academic community. My plans involve enhancing accessibility at academic conferences, encouraging international research communication and collaboration among students, and advancing accessibility technology through innovative tools. Additionally, I will focus on creating inclusive, equitable, and supportive environments that adapt to students' diverse backgrounds and aspirations.

[1] Maryam Taeb, Amanda Swearngin, Eldon Schoop, Ruijia Cheng, Yue Jiang, and Jeffrey Nichols. “Axnav: Replaying accessibility tests from natural language.” In *Proceedings of the CHI Conference on Human Factors in Computing Systems*, pp. 1-16. 2024. **(CHI2024)**