

Ziming Li

Ph.D. Student in Computing and Information Sciences - HCI and Accessibility
Rochester Institute of Technology (RIT)

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Education

Ph.D. in Computing and Information Sciences

Rochester Institute of Technology (RIT), August 2021 - present

Research Areas: Virtual Reality & Accessibility

Supervised by Dr. Roshan Peiris

M.S. in Human Computer Interaction

Rochester Institute of Technology (RIT), August 2018 - December 2020

GPA: 3.91/4.00

Supervised by Dr. Roshan Peiris

B.E. in Network Engineering

Guangdong University of Technology (GDUT), September 2014 - June 2018

Honors: Excellent Student Cadre of GDUT, Scholarship of Academic Progress

Peer-Reviewed Publication

Conference Paper

1. **Ziming Li**, Pinaki Prasanna Babar, and Roshan L Peiris. 2025. Generative Role-Play Communication Training in Virtual Reality for Autistic Individuals: A Study on Job Coach Experiences in Vocational Training Programs. CHI '25. Association for Computing Machinery, New York, NY, USA. *[In press]*
2. **Ziming Li**, Huadong Zhang, Chao Peng, and Roshan L. Peiris. 2025. Exploring Large Language Model-Driven Agents for Environment-Aware Spatial Interactions and Conversations in Virtual Reality Role-Play Scenarios. In Proceedings of the 2025 IEEE Conference on Virtual Reality and 3D User Interfaces (VR), Saint Malo, France. *[In press]*
3. Pratheep Kumar Chelladurai, **Ziming Li**, Maximilian Weber, Tae Oh, and Roshan L Peiris. 2024. SoundHapticVR: Head-Based Spatial Haptic Feedback for Accessible Sounds in Virtual Reality for Deaf and Hard of Hearing Users. In Proceedings of the 26th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '24). Association for Computing Machinery, New York, NY, USA, Article 31, 1–17. <https://doi.org/10.1145/3663548.3675639>
4. Palavi V. Bhole, **Ziming Li**, Shivang Bokolia, Tae Oh, Garreth W. Tigwell, and Roshan L Peiris. 2024. Haptic2FA: Haptics-Based Accessible Two-Factor Authentication for Blind and Low Vision People. Proc. ACM Hum.-Comput. Interact. 8, MHCI, Article 264 (September 2024), 20 pages. <https://doi.org/10.1145/3676509>
5. Yiwen Wang, **Ziming Li**, Pratheep Kumar Chelladurai, Wendy Dannels, Tae Oh, and Roshan L Peiris. 2023. Haptic-Captioning: Using Audio-Haptic Interfaces to Enhance Speaker Indication in Real-Time Captions for Deaf and Hard-of-Hearing Viewers. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 781, 1–14. <https://doi.org/10.1145/3544548.3581076>
6. **Ziming Li**, Shannon Connell, Wendy Dannels, and Roshan Peiris. 2022. SoundVizVR: Sound Indicators for Accessible Sounds in Virtual Reality for Deaf or Hard-of-Hearing Users. In Proceedings of the 24th International ACM

SIGACCESS Conference on Computers and Accessibility (ASSETS '22). Association for Computing Machinery, New York, NY, USA, Article 5, 1–13. <https://doi.org/10.1145/3517428.3544817>

Journal Paper

1. **Ziming Li** and Roshan L Peiris. 2024. Exploring the SoundVizVR Plugin in the Development of Sound-Accessible Virtual Reality Games: Insights from Game Developers and Players. *ACM Trans. Access. Comput.* 17, 4, Article 18 (December 2024), 20 pages. <https://doi.org/10.1145/3698882>
2. **Ziming Li**, and Roshan L Peiris. 2020. RotateEntry: Controller-rolling-style Text Entry for Three Degrees of Freedom Virtual Reality Devices. *Frameless: Vol. 3: Iss. 1*, Article 21.

Extended Abstract

1. Hannah La, **Ziming Li**, Ha-Kyung Kong, and Roshan L Peiris. 2025. Exploring the Efficacy of a Chatbot Training Application in Alleviating Graduate Students' Public-Speaking Anxiety During Q&A. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25)*. Association for Computing Machinery, New York, NY, USA [*Accepted*]
2. Marie Lee, **Ziming Li**, Wendy Dannels, Tae Oh, and Roshan L Peiris. 2025. Exploring One Handed Signing During Driving for Interacting with In-vehicle Systems for Deaf and Hard of Hearing Drivers. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '25)*. Association for Computing Machinery, New York, NY, USA [*Accepted*]
3. **Ziming Li**, Pinaki Prasanna Babar, Mike Barry, and Roshan L Peiris. 2024. Exploring the Use of Large Language Model-Driven Chatbots in Virtual Reality to Train Autistic Individuals in Job Communication Skills. In *Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI EA '24)*. Association for Computing Machinery, New York, NY, USA, Article 156, 1–7. <https://doi.org/10.1145/3613905.3651996>
4. **Ziming Li**, Kristen Shinohara, and Roshan L Peiris. 2023. Exploring the Use of the SoundVizVR Plugin with Game Developers in the Development of Sound-Accessible Virtual Reality Games. In *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems (CHI EA '23)*. Association for Computing Machinery, New York, NY, USA, Article 130, 1–7. <https://doi.org/10.1145/3544549.3585750>

Presentation and Demo

1. **Ziming Li**, and Roshan Peiris. 2021. VR Sound Mapping: Make Sound Accessible for DHH People in Virtual Reality Environments. 6th Annual Frameless XR Symposium.
2. **Ziming Li**, and Roshan Peiris. 2020. RotateEntry: Controller-rolling-style Text Entry for 3 Degrees of Freedom Virtual Reality Devices. 5th Annual Frameless XR Symposium.

Invited Talk

1. "SoundVizVR: Sound Indicators for Accessible Sounds in Virtual Reality for Deaf or Hard of Hearing Users". Guest Lecture Talk for the Design For Accessibility Class at the Rochester Institute of Technology. March 10, 2023.

Reviewing Experience

1. *CHI 2025*

- Full Papers (2) – [2 *Special Recognitions*]
 - Late-Breaking Work (3) – [1 *Special Recognition*]
2. CHI 2024 – Full Papers (1)
 3. CHI 2023 – Late-Breaking Work (1)

Research Experience

Graduate Research Assistant

Rochester Institute of Technology, Rochester, NY [April 2021 – Present]

- Designed and developed over 10 VR HMD prototype applications using Unity and web technologies to support experimental design and research hypotheses in human-computer interaction (HCI) and accessibility.
- Conducted over 80 user studies, collecting and analyzing quantitative and qualitative data to evaluate performance, usability, and user experience.

Researcher & Developer Lead

Heritage Christian Services, Rochester, NY [May 2023 – Present]

- Developed an LLM-driven VR chatbot with over 150 training sessions to help autistic individuals practice job-related communication skills through role-play interactions.
- Designed and built a web-based platform enabling job coaches to create and manage role-play scenarios via LLM prompts, integrated seamlessly with the VR chatbot system.
- Conducted usability and user experience evaluations with 10+ job coaches and trainees with intellectual and developmental disabilities at non-profit job training organizations.

UX Researcher

LiveLike, Rochester, NY [January 2019 – April 2019]

- Led contextual inquiry, heuristic evaluation, and usability testing for an interactive live-streaming platform, conducting user studies with 8 participants.
- Collaborated with a team of 4 UX researchers to synthesize research findings and present usability improvement recommendations to LiveLike stakeholders.

Technical Skills

Programming: C# (Unity), JavaScript (Vue.js, Svelte.js, Node.js), Java (Android)

VR Development: Unity3D, Oculus Integration, Meta Avatars SDK

AI & LLM: OpenAI GPT API, Speech-to-Text (Meta VoiceSDK, OpenAI Whisper), Text-to-Speech (OpenAI, Wit.ai)

Database & Backend: MongoDB, Node.js, Express.js

Research Tools: Qualtrics, JASP