Yuki Abe

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Research Interests

Human-Computer Interaction (HCI), Accessibility, Augmented/Virtual Reality (AR/VR), User Experience and Usability (UI/UX)

Summary

Yuki Abe is a Ph.D. student in HCI lab at Hokkaido University. He designs, develops, and evaluates assistive technologies and AR/VR interaction techniques for accessible and inclusive human activities, including exercise. He first-authored **two ACM CHI 2025 Honorable Mention Papers** on AR assistive technology [C.1] and VR interface [C.2].

Education

Hokkaido University — Japan
Ph.D. Student in Information Science and Technology, advised by Prof. Daisuke Sakamoto — *Apr 2024 – Present*

Singapore Management University — Singapore
Visiting Ph.D. Student in Computing and Information Systems, advised by Prof. Kotaro Hara — *Sep 2024 – Mar 2025*

Hokkaido University — Japan
Master's degree in Information Science and Technology, advised by Prof. Daisuke Sakamoto — *Apr 2022 – Mar 2024*

Selected Awards

CHI 2025 Best Paper Honorable Mention — Apr 2025
[C.1] has been selected as the top 5% of submissions in ACM CHI 2025

CHI 2025 Best Paper Honorable Mention — Apr 2025
[C.2] has been selected as the top 5% of submissions in ACM CHI 2025

Selected Publications

[J.1] **Yuki Abe**, Daisuke Sakamoto, and Tetsuo Ono. "I feel lonely when they stop chatting": Exploring Auditory Comment Display for Eyes-Free Social-Viewing Experience in Online Music Videos. *Proc. ACM Hum.-Comput. Interact, CSCW, 2025*. Acceptance rate: TBD.
–Explored an auditory interface that enables users without vision to enjoy music videos with other viewers online

[C.1] **Yuki Abe**, Keisuke Matsushima, Kotaro Hara, Daisuke Sakamoto, and Tetsuo Ono. "I can run at night!": Using Augmented Reality to Support Nighttime Guided Running for Low-vision Runners. *Proc. ACM CHI '25*. Acceptance rate: 25.1%. **Best Paper Honorable Mention Award**.
–Designed, developed, and evaluated RunSight, the first AR assistive technology that enables low-vision runners to run at night

[C.2] **Yuki Abe***, Kan Kusakabe*, Myungguen Choi*, Daisuke Sakamoto, and Tetsuo Ono. Understanding Usability of VR Pointing Methods with a Handheld-style HMD for Onsite Exhibitions. *Proc. ACM CHI '25*. Acceptance rate: 25.1%. **Best Paper Honorable Mention Award**.
–Conducted a user study of VR interfaces with a handheld headset to provide guidelines for easy-to-start and engaging VR exhibition

Skills

- 5+ years of research in HCI and user-centered design. 3 first-authored top-tier peer-reviewed publications like ACM CHI and CSCW
- 5+ years of experience in experimental design of user studies and quantitative and qualitative analysis to interpret results
- 7+ years of experience in programming languages and rapid prototyping with JavaScript/TypeScript, Python, Unity (C#), Swift
- 4+ years developing groupware web service Temaneki from scratch using TypeScript, Next.js, GCP, and Figma (2,000+ active users)
- 3+ years implementing signal processing (BLE, UWB), machine learning (PyTorch, transfer learning), and AI Prompt Engineering
- ¥15,000,000 JPY+ ($100,000 USD+) in scholarship and grants like IPA Mitou and Japan Society for the Promotion of Science (DC2)
- Business fluent in English. Experience in staying in Singapore and leading a research project in English