

Masaki Kuribayashi

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Doctoral student (final year) at Waseda University with a focus on HCI, particularly in developing assistive systems for visually impaired individuals. Passionate about AI-driven solutions, including **multimodal large language models, visual language navigation models, robots, and smartphone-based systems** to enhance user navigation experiences. Proven expertise in developing these assistive technologies, user-centered co-design method, dataset & AI model development. Expected to complete the Doctor's program in Mar. 2026.
Keyword: **Human Computer Interaction, Accessibility, Robots, Computer Vision, Vision and Language**

Education

Apr. 2023 - Current	Doctor of Engineering Graduate School of Advanced Science and Engineering, Waseda University Major: Accessibility, Human-Computer Interaction, Computer Vision Advisor: Shigeo Morishima
Apr. 2021 - Mar. 2023	Master of Engineering Graduate School of Advanced Science and Engineering, Waseda University Major: Accessibility, Human-Computer Interaction Advisor: Shigeo Morishima
Apr. 2017 - Mar. 2021	Bachelor of Science School of Advanced Science and Engineering, Department of Physics, Waseda University Major: Theoretical Physics

Work Experience

Apr. 2023 - Current	Research Fellow DC1 of JSPS Research Fellowship for Young Scientists Advisor: Shigeo Morishima
Aug. 2025 - Current	Intern of Woven By Toyota Advisor: Kei Nitta
Aug. 2024 - July. 2025	Part Time Researcher of Accessibility Lab, Miraikan Advisor: Hironobu Takagi, Chieko Asakawa
Jan. 2024 - May. 2024	Visiting Researcher of H2X Lab, Boston University Advisor: Eshed Ohn-Bar
Apr. 2021 - Dec. 2023	Research Intern of IBM Research Advisor: Chieko Asakawa, Hironobu Takagi
Jun. 2022 - Sep. 2022	Visiting Researcher of Cognitive Assistance Lab, Carnegie Mellon University Advisor: Chieko Asakawa, Daisuke Sato

Awards

Mar. 2025	Honorable Mention , Understanding and Supporting Formal Email Exchange by Answering AI-Generated Questions, CHI 2025
Mar. 2025	Azusa Ono Memorial Award , Waseda University
Mar. 2021	Azusa Ono Memorial Award , Waseda University
Dec. 2020	Best Paper Award , JSPS WISS 2020

Scholarship

May. 2024	Travel support from the Telecommunications Advancement Foundation to MobileHCI 2024
Jan. 2024 - May. 2024	Visiting support from Super Global University (SGU) , ICT & Robotics, Waseda University
Jan. 2024 - May. 2024	Scholarship for short-term study abroad , Japan Student Services Organization (JASSO)
Apr. 2023 - Mar. 2026	Research Fellowship for Young Scientists DC1 , Japan Society for the Promotion of Science
Mar. 2023	Isao Okawa Scholarship for Information Technology Science , Waseda University. 200K JPY
Apr. 2021 - Mar. 2023	Scholarship for Outstanding Master Students , Japan Student Services Organization (JASSO)

Skills

Programming Language: **Swift, Python, C#**
Frameworks / Platforms: **Xcode, ARKit, OpenCV, Docker, ROS, Pytorch, Unity, Adobe CC (Illustrator, Premiere Pro, and InDesign)**

Publications

Journal Papers and Full Papers

[1] **Masaki Kuribayashi***, Seita Kayukawa*, Hironobu Takagi, Chieko Asakawa, and Shigeo Morishima (* - equal contribution). 2021. **LineChaser: A Smartphone-Based Navigation System for Blind People to Stand in Line**. CHI 2021.
DOI: <https://doi.org/10.1145/3411764.3445451>

[2] **Masaki Kuribayashi**, Seita Kayukawa, Jayakorn Vongkulbhisal, Daisuke Sato, Chieko Asakawa, Hironobu Takagi, Shigeo Morishima. 2022. **Corridor-Walker: Mobile Indoor Walking Assistance for Blind People to Avoid Obstacles and Recognize Intersections**. Mobile HCI 2022.
DOI: <https://doi.org/10.1145/3546714>

[3] **Masaki Kuribayashi**, Tatsuya Ishihara, Daisuke Sato, Jayakorn Vongkulbhisal, Karnik Ram, Seita Kayukawa, Hironobu Takagi, Shigeo Morishima, and Chieko Asakawa. 2023. **PathFinder: Designing a Map-less Navigation System for Blind People in Unfamiliar Buildings**. CHI 2023.
DOI: <https://doi.org/10.1145/3544548.3580687>

[4] Yusuke Miura, Erwin Wu, **Masaki Kuribayashi**, Hideki Koike, Shigeo Morishima. 2023. **Exploration of Sonification Feedback for People with Visual Impairment to Use Ski Simulator**. AHs 2023.
DOI: <https://doi.org/10.1145/3582700.3582702>

[5] Yuka Kaniwa*, **Masaki Kuribayashi***, Seita Kayukawa, Daisuke Sato, Hironobu Takagi, Chieko Asakawa, Shigeo Morishima (* - equal contribution). 2024. **ChitChatGuide: Enabling Exploration in a Shopping Mall for People with Visual Impairments through Conversational Interaction Using Large Language Models**. Mobile HCI 2024
DOI: <https://doi.org/10.1145/3676492>

- [6] Masaya Kubota*, **Masaki Kuribayashi***, Seita Kayukawa, Hironobu Takagi, Chieko Asakawa, Shigeo Morishima (* - equal contribution). 2024. **Snap&Nav: Smartphone-based Indoor Navigation System For Blind People via Floor Map Analysis and Intersection Detection**. Mobile HCI 2024
DOI: <https://doi.org/10.1145/3676522>
- [7] Hee Jae Kim, Kathakoli Sengupta, **Masaki Kuribayashi**, Hernisa Kacorri, Eshed Ohn-Bar. 2024. **Text to Blind Motion**. NeurIPS 2024.
Project Page: <https://blindways.github.io/>
- [8] **Masaki Kuribayashi**, Kohei Uehara, Allan Wang, Shigeo Morishima and Chieko Asakawa. 2025. **WanderGuide: Indoor Map-less Robotic Guide for Exploration by Blind People**, CHI 2025.
DOI: <https://dl.acm.org/doi/10.1145/3706598.3713788>
- [9] Yusuke Miura, Chi-Lan Yang, **Masaki Kuribayashi**, Keigo Matsumoto, Hideki Kuzuoka, and Shigeo Morishima. 2025. **Understanding and Supporting Formal Email Exchange by Answering AI-Generated Questions**, CHI 2025.
DOI: <https://dl.acm.org/doi/10.1145/3706598.3714016>
- [10] Toshihiro Hirano, Yichen Peng, **Masaki Kuribayashi**, Erwin Wu, Shigeo Morishima and Hideki Koike. 2025 **SlopeNav: A Realtime Wearable Blind Ski Assistance System with Adaptive Path Planning for Simulated Environments**. AHS2022.
- [11] **Masaki Kuribayashi***, Kohei Uehara*, Allan Wang, Daisuke Sato, Simon Chu and Shigeo Morishima. (* - equal contribution) 2025. **Memory-Maze: Scenario Driven Benchmark and Visual Language Navigation Model for Guiding Blind People**, RA-L. (Will be presented at ICRA2026)
DOI: <https://doi.org/10.48550/arXiv.2405.0706>

Short Papers and Posters

- [12] **Masaki Kuribayashi**, Seita Kayukawa, Jayakorn Vongkulbhisal, Daisuke Sato, Chieko Asakawa, Hironobu Takagi, Shigeo Morishima. 2021. **Designing a Smartphone-Based Assistance System for Blind People to Recognize Intersections and Obstacles in Indoor Corridors**. Mobiquitous 2021.
- [13] Yusuke Miura, **Masaki Kuribayashi**, Erwin Wu, Hideki Koike, Shigeo Morishima. 2022. **A Study on Sonification Method of Simulator-Based Ski Training for People with Visual Impairment**. SIGGRAPH Asia 2022.
- [14] **Masaki Kuribayashi**, Hironobu Takagi, Chieko Asakawa, Shigeo Morishima. 2023. **Textual and Directional Sign Recognition Algorithm for People with Visual Impairment by Linking Texts and Arrows**. CVPR 2023 Workshop.
- [15] **Masaki Kuribayashi**, Kohei Uehara, Allan Wang, Daisuke Sato, Simon Chu and Shigeo Morishima. 2024. **Memory-Maze: Benchmark and Visual Language Navigation Model for Guiding Blind People**. RSS 2024 Workshop.
- [16] Hee Jae Kim, Kathakoli Sengupta, **Masaki Kuribayashi**, Hernisa Kacorri, Eshed Ohn-Bar. 2024. **A Multi-Modal Dataset for Urban Navigation by Blind Individuals**. ASSETS 2024 Workshop.
- [17] **Masaki Kuribayashi**, Kohei Uehara, Allan Wang, Daisuke Sato, Renato Ribeiro, Simon Chu and Shigeo Morishima. 2025. **Memory-Maze: Scenario Driven Benchmark and Visual Language Navigation Model for Guiding Blind People**. ICRA 2025 Workshop.
- [18] Masaya Kubota, **Masaki Kuribayashi**, Renato Ribeiro, and Shigeo Morishima. 2025. **Investigating Blind People's Route Perception of Complex Pre-Mapped Routes in Virtual Reality**. UIST2025.

Academic Service

Reviewer of CHI, Mobile HCI, IMWUT, ASSETS, Disability and Rehabilitation: Assistive Technology
Associate Reviewer of CHI LBW
CHI 2025 Assistant of Local Arrangement Chair, Organzing Committee
Post CHI Miraikan Networking Event Organizer

Talks

May. 2023	Masaki Kuribayashi, " Introduction to Accessibility Research ", Hong Kong Japanese School
Nov. 2023	Masaki Kuribayashi, " PathFinder: Designing a Map-less Navigation System for Blind People in Unfamiliar Buildings ", Workshop on Interactive Software and Systems 2023 (WISS2023)
Sep. 2024	Masaki Kuribayashi, " PathFinder: Designing a Map-less Navigation System for Blind People in Unfamiliar Buildings ", Forum of Information Teachnology (FIT2024)
Feb. 2025	Masaki Kuribayashi, " Research Introduction; Map-less Navigation System for Blind People ", A11y Meetup, Cybozu, Japan
Mar. 2025	Masaki Kuribayashi, " PathFinder: Designing a Map-less Navigation System for Blind People in Unfamiliar Buildings ", Global Creative Leaders Society, Tokyo University
May. 2025	Masaki Kuribayashi, " WanderGuide: Indoor Map-less Robotic Guide for Exploration by Blind People ", CHI 2025 Symposium