Masaki Kuribayashi

Doctor's Student at Shigeo Morishima Laboratory, Graduate School of Advanced Science and Engineering, Waseda University.

Phone: +81-070-4455-3236
Email: rugbykuribayashi@toki.waseda.jp
Web: www.masakikuribayashi.com

Doctor's Student at Waseda University. Interested in the field of Human-Computer Interaction, particularly in assistive system for supporting navigation of people with visual impairment (Accessibility). Experience in conducting user-centered & inclusive design with people with visual impairment, development of navigation systems using smartphones and robots, designing/conducting user studies, and conducting statistical analysis. Expected to complete the Doctor's program in Mar. 2026.

Education

Apr. 2023 - Current	**Doctor of Engineering** Graduate School of Advanced Science and Engineering, Waseda University Advisor: Shigeo Morishima
Apr. 2021 - Mar. 2023	**Master of Engineering** Graduate School of Advanced Science and Engineering, Waseda University Advisor: Shigeo Morishima
Apr. 2017 - Mar. 2021	**Bachelor of Science** Department of Physics, Waseda University Advisor: Shigeo Morishima

Work Experience

Apr. 2023 - Current	**Research Fellow DC1** JSPS Research Fellowship for Young Scientists
Apr. 2021 - Current	**Research Intern** IBM Research - Tokyo Advisor: Chieko Asakawa, Hironobu Takagi Developed a navigation application for bind people on iOS smartphone.
Jun. 2022 - Sep. 2022	**Research Intern** Cognitive Assistance Lab, Robotics Institute, Carnegie Mellon University Advisor: Chieko Asakawa, Daisuke Sato Developed a deep learning based sign recognition model and navigation robot for blind people.

Awards

Mar. 2021	**Azusa Ono Memorial Award** Waseda University The most prestigious award by Waseda University, which 0.014% of students receive.
Dec. 2020	**Best Paper Award** JSPS WISS 2020 (a domestic conference in Japan) An award that the top 3% of paper receives.

Scholarship

Apr. 2023 - Mar. 2026   **JSPS Research Fellowship for Young Scientists (DC1, "Gakushin")**

Mar. 2023   **Isao Okawa Scholarship for Information Technology Science**, Waseda University. 200k JPY

Skills

Programming Language: **Swift, Python**

Frameworks / Platforms: **Xcode, ARKit, OpenCV, Docker**

Others: **XCode, Adobe CC (Illustrator, Premiere Pro, and InDesign),
User Studies, Statistical Analysis**

Publications

Journal Papers and Conference 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.** In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems. (CHI 2021).
DOI: https://doi.org/10.11 45/3411764.3445451

[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.** In Proceedings of the 24th International Conference on Human-Computer Interaction with Mobile Devices and Services. (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.** In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems. (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.** Augmented Humans 2023. (AHs 2023).
DOI: https://doi.org/10.1145/3582700.3582702

Short Papers and Posters

[5]   **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.** Mobile and Ubiquitous Systems. (Mobiquitous 2021).

[6]   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 Posters. (SA '22 Posters).

[7]   **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. The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2023 Workshop (CVPR 2023 Workshop).

Academic Service

CHI 2023 LBW External Reviewer

Mobile HCI 2023 External Reviewer

Invited Talks

May. 2023   **Masaki Kuribayashi**, "Introduction to Accessibility Research and My Experience of "Juken"", Hong Kong Japanese School