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Masaki Kuribayashi

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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 Master 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

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).

Academic Service

CHI 2023 LBW External Reviewer

Mobile HCI 2023 External Reviewer