# Masaki Kuribayashi

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

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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

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

# Work Experience

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

# Awards

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| Mar. 2021 | **Azusa Ono Memorial Award**<br>Waseda University<br>The most prestigious award by Waseda University, which 0.014% of students receive. |
| Dec. 2020 | **Best Paper Award**<br>JSPS WISS 2020 (a domestic conference in Japan)<br>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).

# 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