

# Seita Kayukawa

## Ph. D. Student (Apr. 2020 ~)

Shigeo Morishima Laboratory,  
Department of Pure and Applied Physics,  
Graduate School of Advanced Science and Engineering,  
Waseda University.

**Address:** 55N406, 3-4-1 Okubo, Shinjuku, Tokyo, 169-0072, Japan

**Phone:** +81-3-5286-3510

**Email:** [k940805k@ruri.waseda.jp](mailto:k940805k@ruri.waseda.jp)

**Web:** <https://wotipati.github.io>

## Education

---

<b>Apr. 2020 - Present</b>	<b>Ph. D. Student</b> Graduate School of Advanced Science and Engineering, Waseda University Advisor: Shigeo Morishima
<b>Apr. 2018 - Mar. 2020</b>	<b>Master of Engineering</b> Graduate School of Advanced Science and Engineering, Waseda University Advisor: Shigeo Morishima
<b>Apr. 2014 - Mar. 2018</b>	<b>Bachelor of Science</b> Department of Applied Physics, Waseda University Advisor: Shigeo Morishima

## Work Experience

---

<b>Apr. 2020 - Present</b>	<b>Research Fellow (DC1)</b> JSPS Research Fellowship for Young Scientists
<b>Apr. 2018 - Mar. 2020</b>	<b>Research Intern</b> IBM Research - Tokyo Advisor: Tatsuya Ishihara, Hironobu Takagi, and Chieko Asakawa
<b>Apr. 2014 - Mar. 2018</b>	<b>Research Intern</b> Cognitive Assistance Lab., Robotics Institute, Carnegie Mellon University Advisor: Keita Higuchi, Chieko Asakawa, and Kris Kitani

## Research Interest

---

Human-Computer Interaction; Accessibility; Video Browsing

## Publications

---

- [1] Seita Kayukawa, Tatsuya Ishihara, Hironobu Takagi, Shigeo Morishima, and Chieko Asakawa. 2020. **Guiding Blind Pedestrians in Public Spaces by Understanding Walking Behavior of Nearby Pedestrians**. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*. 4, 3, Article 85 (September 2020), 22 pages.  
DOI: <https://dx.doi.org/10.1145/3290605.3300282>
- [2] Seita Kayukawa, Keita Higuchi, João Guerreiro, Shigeo Morishima, Yoichi Sato, Kris Kitani, and Chieko Asakawa. 2019. **BBeep: A Sonic Collision Avoidance System for Blind Travellers and Nearby Pedestrians**. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19)*.  
DOI: <https://dx.doi.org/10.1145/3290605.3300282>
- [3] Seita Kayukawa, Hironobu Takagi, João Guerreiro, Shigeo Morishima, and Chieko Asakawa. 2020. **Smartphone-Based Assistance for Blind People to Stand in Lines**. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20 LBW)*.  
DOI: <https://doi.org/10.1145/3334480.3382954>
- [4] Seita Kayukawa, Tatsuya Ishihara, Hironobu Takagi, Shigeo Morishima, and Chieko Asakawa. 2020. **BlindPilot: A Robotic Local Navigation System that Leads Blind People to a Landmark Object**. In *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20 LBW)*.  
DOI: <https://dx.doi.org/10.1145/3170427.3189085>
- [5] Ryo Shimamura, Seita Kayukawa, Takayuki Nakatsuka, Shoki Miyagawa, and Shigeo Morishima. 2019. **A Study on the Sense of Burden and Body Ownership on Virtual Slope**. In *Proceedings of the IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR '19 Poster)*.  
DOI: <https://dx.doi.org/10.1109/VR.2019.8797960>
- [6] Seita Kayukawa, Keita Higuchi, Ryo Yonetani, Masanori Nakamura, Yoichi Sato, and Shigeo Morishima. 2018. **Dynamic Object Scanning: Object-Based Elastic Timeline for Quickly Browsing First-Person Videos**. In *Extended Abstracts of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18 LBW and DEMO)*.  
DOI: <https://dx.doi.org/10.1145/3170427.3189085>

## Awards

---

- Mar. 2020**    **IPSJ Yamashita SIG Research Award**  
Information Processing Society of Japan (IPSJ)
- Mar. 2019**    **Azusa Ono Memorial Award**  
Waseda University
- Mar. 2019**    **Best Paper Award**  
IPSJ Interaction 2019 (a Domestic Conference in Japan)

## Scholarships

---

May 2020 - Current	Early Bird Program (Support for Young Researchers), Waseda Research Institute for Science and Engineering
Apr. 2018 - Mar. 2020	JASSO Scholarship for Top 10% Excellent Master Students
May 2018 - Sept. 2018	Visiting Support from Super Global University
May 2018 - Aug. 2018	JASSO Scholarship for Short-term Study Abroad

## Skills

---

**Programming Languages:** C++, Python, Swift, HTML, CSS

**Libraries / Platforms:** OpenCV, Qt5, ROS, Arduino, CMake

**OS:** macOS, Ubuntu

**Others:** Adobe CC (Illustrator, Premiere Pro, Photoshop, InDesign)

User Studies, Statistical Analysis

Machine Learning, Coursera MOOC by Andrew NG, Nov. 2018

Updated: July 25, 2020