# 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.

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#### **Education**

Apr. 2020 - Present Ph. D. Student

Graduate School of Advanced Science and Engineering, Waseda University

Advisor: Shigeo Morishima

Apr. 2018 - Mar. 2020 Master of Engineering

Graduate School of Advanced Science and Engineering, Waseda University

Advisor: Shigeo Morishima

Apr. 2014 - Mar. 2018 Bachelor of Science

Department of Applied Physics, Waseda University

Advisor: Shigeo Morishima

## Work Experience

Apr. 2020 - Present Research Fellow (DC1)

JSPS Research Fellowship for Young Scientists

Apr. 2018 - Mar. 2020 Research Intern

IBM Research - Tokyo

Advisor: Tatsuya Ishihara, Hironobu Takagi, and Chieko Asakawa

Apr. 2014 - Mar. 2018 Research Intern

Cognitive Assistance Lab., Robotics Institute, Carnegie Mellon University

Advisor: Keita Higuchi, Chieko Asakawa, and Kris Kitani

### **Research Interest**

#### **Publications**

[1] **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: <a href="https://dx.doi.org/10.1145/3290605.3300282">https://dx.doi.org/10.1145/3290605.3300282</a>

[2] 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

[3] **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

[4] 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: <a href="https://dx.doi.org/10.1109/VR.2019.8797960">https://dx.doi.org/10.1109/VR.2019.8797960</a>

[5] 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 Grant-in-Aid for Young Scientists (Early Bird),

Waseda Research Institute for Science and Engineering

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: May 25, 2020