

Toshiya Isomoto

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I am a PhD candidate, researching the human-computer interaction, focusing on the human-centered design of input techniques. The goal of my research is developing the interface everyone can interact with computers. In particular, I am interested in developing a gaze-based interface through the study of the user's behavior.

EDUCATION

- 2020 – Present University of Tsukuba,
Doctoral Program in Computer Science
Advisor: Prof. Buntarou Shizuki
- 2018 – 2020 University of Tsukuba, Graduate School of SIE, Department of CS.
Master's course in Computer Science
Advisor: Prof. Buntarou Shizuki
- 2016 – 2018 University of Tsukuba, College of Media Arts, Science and Technology
Bachelor of Science in Media Sciences and Engineering
- 2011 – 2016 National Institute of Technology, Tokuyama College, Department of
Computer Science and Electronic Engineering
Foundation degree of Engineering

AWARDS

- 2020 - Best Student Award by Japan Student Service Organization, with Exemption of Refunding 2,100,000 yen of Loan-based Scholarship
- Award by the Dean of Graduate School of Systems and Information Engineering of University of Tsukuba
- 2019 - Student Award, Information Processing Society of Japan, SIGHCI
- 2018 - Award by the Dean of College of Media Arts, Science and Technology of University of Tsukuba

PEER-REVIEWED CONFERENCE PAPER

- 2020 [1] **Toshiya Isomoto**, Shota Yamanaka, Buntarou Shizuki. "Gaze-based Command Activation Technique Robust Against Unintentional Activation using Dwell-

then-Gesture”. Proceedings of Graphics Interface 2020 (GI 2020), Article 24, 11 pages, May 2020.

- 2018 [2] **Toshiya Isomoto**, Toshiyuki Ando, Buntarou Shizuki, and Shin Takahashi. “Dwell Time Reduction Technique using Fitts' Law for Gaze-Based Target Acquisition”. Proceedings of the 2018 ACM Symposium on Eye Tracking Research & Applications (ETRA 2018), pp. 26:1-26:7, ACM, New York, NY, USA, Warsaw, Poland, June 2018.

PEER-REVIEWED POSTER AND DEMO

- 2019 [3] **Toshiya Isomoto**, Shota Yamanaka, Buntarou Shizuki. “Gaze-based Command Activation Technique using Two-level Stroke”. Proceedings of the 2020 ACM CHI symposia on ASIAN CHI SYMPOSIUM: EMERGING HCI RESEARCH COLLECTION (Asian CHI Symposium 2020), 6 pages, ACM, New York, NY, USA, Glasgow, UK, May 2019. (to appear)
- [4] **Toshiya Isomoto**, Toshiyuki Ando, Buntarou Shizuki, and Shin Takahashi. “Investigation of Midas-touches in Dwell Time Reduction Technique using Fitts' Law for Dwell-Based Target Acquisition”. Proceedings of the 2019 ACM CHI symposia on ASIAN CHI SYMPOSIUM: EMERGING HCI RESEARCH COLLECTION (Asian CHI Symposium 2019), 8 pages, ACM, New York, NY, USA, Glasgow, UK, May 2019.
- [5] **Toshiya Isomoto**, Akira Ishii, Shuta Nakamae, and Buntarou Shizuki. “Target Selection Technique Using Space Below Cardboard VR Goggles”. Proceedings of the 2018 ACM CHI symposia on ASIAN CHI SYMPOSIUM: EMERGING HCI RESEARCH COLLECTION (Asian CHI Symposium 2018), 8 pages, ACM, New York, NY, USA, Montréal, Canada, April 2018.

Full list of publications is here: <https://www.iplab.cs.tsukuba.ac.jp/~isomoto/>

INTERNSHIP

Aug. 2018 – Present **Research Internship**, Yahoo Japan Corporation
Investigating human behavior and developing a gaze-based interface
Advisor: [Shota Yamanaka](#)

TECHNICAL SKILLS

- Programming Languages: Proficient in: C, C#, Ruby
Basic ability: JavaScript, HTML, CSS, Unity, Python, Java for Android
- Design Skills: Proficient in: Adobe CC (After Effects, Illustrator, Premier Pro, Photoshop)

TEACHING EXPERIENCES

- Spring 2019 - Teaching Assistant: University of Tsukuba
Programming Laboratory IA•IB with Buntarou Shizuki
- Teaching Assistant: University of Tsukuba
Programming Languages and Methodology with Buntarou Shizuki
- Autumn 2018 - Teaching Assistant: University of Tsukuba
Programming Laboratory II with Yoshihiro Kanamori
- Spring 2018 - Teaching Assistant: University of Tsukuba
Programming Laboratory IA•IB with Buntarou Shizuki
- Teaching Assistant: University of Tsukuba
Programming Languages and Methodology with Buntarou Shizuki

GRANTS

- Apr. 2020 to Research grant. Tateishi Science and Technology Promoting Foundation C.
- Mar. 2023 (1,660,000 yen)
- Apr. 2019 Travel grant. Marubun Research Promotion Foundation (200,00 yen)
- Jun. 2018 Travel grant. The NEC C&C Foundation (250,00 yen)
- Apr. 2018 Travel grant. University of Tsukuba, Department of Systems and Information Engineering (100,00 yen)
- Dec. 2017 Travel grant. University of Tsukuba, College of Media Arts, Science and Technology (60,000 yen)

SERVICE

- Feb. 2020 Review. Asian CHI Symposium: Emerging HCI Research Collection in ACM Conference on Human Factors in Computing Systems (CHI) 2020
- Sept. 2018 Student Volunteer. 26th Workshop on Interactive Systems and Software (WISS2018, domestic workshop).