

Akira Matsuda

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G <https://scholar.google.com/citations?user=4jNlke0AAAAJ&hl=en&oi=sra>



Research Interests

- Akira Matsuda is an HCI researcher and a software engineer. He received his Ph.D. in Interdisciplinary Information Studies, master's degree in Arts and Sciences from The University of Tokyo, and bachelor's degree in Engineering from Shibaura Institute of Technology in 2023, 2017, and 2015, respectively.

His role in Human-Computer Interaction is to create a future in which we transfer our personalities to communicate or collaborate remotely with high engagement. He is focusing not only on communication by language but also on communication using nonverbal messages through an act of seeing, such as gaze behavior and eye contact, by proposing an approach for presenting the nonverbal message modalities that differ from face-to-face communication and go beyond physical constraints.

Keywords: Remote Communication; Remote Collaboration; Telepresence; Nonverbal Message; Gaze; Eye Contact

Professional / Work Experiences

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|----------------------------|---|
| 2017 – 2019 | ■ Assistant Researcher Sony Computer Science Laboratories, Inc. (Sony CSL), Tokyo, Japan |
| FEBRUARY 2017 – MARCH 2017 | ■ Research Internship National Institute of Advanced Industrial Science and Technology (AIST), Ibaraki, Japan |
| SEPTEMBER 2015 | ■ Internship Sony Corporation, Tokyo, Japan |
| 2015 – 2017 | ■ Software Engineer Yukai Engineering Inc., Tokyo, Japan iOS app development, Server back-end development, Embedded software development |
| 2016 – | ■ Software Engineer Link-U, Inc., Tokyo, Japan iOS app development, UI/UX design |
| MARCH 2011 – JUNE 2011 | ■ Software Engineer Lunascape Corporation, Inc., Tokyo, Japan iOS app development |
| NOVEMBER 2010 – MARCH 2012 | ■ Software Engineer Galapagos, Inc., Inc., Tokyo, Japan iOS app development |

Education

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| 2023 | ■ Ph.D in INTERDISCIPLINARY INFORMATION STUDIES Graduate School of Interdisciplinary Information Studies, The University of Tokyo , Tokyo, Japan, Advisor: Jun Rekimoto |
| 2017 | ■ M.A.S. in INTERDISCIPLINARY INFORMATION STUDIES Graduate School of Interdisciplinary Information Studies, The University of Tokyo , Tokyo, Japan, Advisor: Jun Rekimoto |
| 2015 | ■ B.E. in COMPUTER SCIENCE School of Engineering, Shibaura Institute of Technology , Tokyo, Japan, Advisor: Hiroyuki Nakamura |


Academic Services

Reviewer Experience









2017  35th ACM Conference on Human Factors in Computing Systems (ACM CHI 2017)

Research Publications

Journal Articles

- 1 A. **Matsuda**, T. Okuzono, H. Nakamura, H. Kuzuoka, and J. Rekimoto, "A surgical scene replay system for learning gastroenterological endoscopic surgery skill by multiple synchronized-video and gaze representation," *Proc. ACM Hum.-Comput. Interact.*, vol. 5, no. EICS, May 2021.  DOI: 10.1145/3461726.

Conference Proceedings

- 1 A. **Matsuda**, K. Nozawa, K. Takata, A. Izumihara, and J. Rekimoto, "Hapticpointer: A neck-worn device that presents direction by vibrotactile feedback for remote collaboration tasks," in *Proceedings of the Augmented Humans International Conference*, ser. AHs '20, Kaiserslautern, Germany: Association for Computing Machinery, 2020, ISBN: 9781450376037.  DOI: 10.1145/3384657.3384777.
- 2 A. **Matsuda**, K. Nozawa, and J. Rekimoto, "Jackin neck: A neckband wearable telepresence system designed for high comfortability," in *Proceedings of the 2018 ACM International Conference on Interactive Surfaces and Spaces*, ser. ISS '18, Tokyo, Japan: Association for Computing Machinery, 2018, pp. 415–418, ISBN: 9781450356947.  DOI: 10.1145/3279778.3279917.
- 3 T. Takahashi, K. Shiro, A. **Matsuda**, *et al.*, "Augmented jump: A backpack multirotor system for jumping ability augmentation," in *Proceedings of the 2018 ACM International Symposium on Wearable Computers*, ser. ISWC '18, Singapore, Singapore: Association for Computing Machinery, 2018, pp. 230–231, ISBN: 9781450359672.  DOI: 10.1145/3267242.3267270.
- 4 A. **Matsuda**, T. Miyaki, and J. Rekimoto, "Scalablebody: A telepresence robot that supports face position matching using a vertical actuator," in *Proceedings of the 8th Augmented Human International Conference*, ser. AH '17, DOI:http://doi.acm.org/10.1145/3041164.3041182, Silicon Valley, California: ACM, 2017, 13:1–13:9, ISBN: 978-1-4503-4835-5.  DOI: 10.1145/3041164.3041182.
- 5 S. Yamashita, A. **Matsuda**, N. Hamanishi, S. Suwa, and J. Rekimoto, "Demulti display: A multiplayer gaming environment for mitigating the skills gap," in *Proceedings of the Eleventh International Conference on Tangible, Embedded, and Embodied Interaction*, ser. TEI '17, DOI:http://doi.acm.org/10.1145/3024969.3025074, Yokohama, Japan: ACM, 2017, pp. 457–463, ISBN: 978-1-4503-4676-4.  DOI: 10.1145/3024969.3025074.
- 6 A. Kadomura, A. **Matsuda**, and J. Rekimoto, "Casper: A haptic enhanced telepresence exercise system for elderly people," in *Proceedings of the 7th Augmented Human International Conference 2016*, ser. AH '16, DOI:http://doi.acm.org/10.1145/2875194.2875197, Geneva, Switzerland: ACM, 2016, 2:1–2:8, ISBN: 978-1-4503-3680-2.  DOI: 10.1145/2875194.2875197.
- 7 A. **Matsuda** and J. Rekimoto, "Scalablebody: A telepresence robot supporting socially acceptable interactions and human augmentation through vertical actuation," in *Proceedings of the 29th Annual Symposium on User Interface Software and Technology*, ser. UIST '16 Adjunct, DOI:http://doi.acm.org/10.1145/2984751.2985718, Tokyo, Japan: ACM, 2016, pp. 103–105, ISBN: 978-1-4503-4531-6.  DOI: 10.1145/2984751.2985718.
- 8 A. **Matsuda**, M. Sugaya, and H. Nakamura, "Luminous device for the deaf and hard of hearing people," in *Proceedings of the Second International Conference on Human-agent Interaction*, ser. HAI '14, DOI:http://doi.acm.org/10.1145/2658861.2658922, Tsukuba, Japan: ACM, 2014, pp. 201–204, ISBN: 978-1-4503-3035-0.  DOI: 10.1145/2658861.2658922.

Skills

Languages	■ JAPANESE: Native
	■ ENGLISH: Intermediate (TOEIC score 735/990, 2014)
Programming Language	■ C, C++, Objective-C, Swift, Processing, PHP
Platform / Framework	■ openFrameworks, macOS, Arduino
Technology	■ Bluetooth Low Energy
Software	■ Xcode, Sketch, Adobe Illustrator, Adobe Premiere Pro

Awards and Grants

Awards

- 2022 ■ **Google Open Source Peer Bonus Award**, <https://opensource.googleblog.com/2022/03/Announcing-First-Group-of-Google-Open-Source-Peer-Bonus-Winners-in-2022.html>.
- 2020 ■ **Honorable Mentions Award**, Augmented Humans International Conference, <https://dl.acm.org/doi/10.1145/3384657.3384777>

Grants

- 2017 ■ Project Fund in Summer Founders Program organized by Division of University Corporate Relations (1,500 dolls)

References

Prof. Jun Rekimoto

Interfaculty Initiative in Information Studies, The University of Tokyo, Tokyo, Japan
<https://www.sonyosl.co.jp/person/rekimoto.html>

Dr. Takashi Miyaki

Interfaculty Initiative in Information Studies, The University of Tokyo, Tokyo, Japan
<https://sites.google.com/site/miyakitakashi/>

Prof. Hiroyuki Nakamura

Dept. of Humanity/Social Sciences, Shibaura Institute of Technology, Tokyo, Japan
<mailto:nkmr@shibaura-it.ac.jp>

Dr. Jun Kato

National Institute of Advanced Industrial Science and Technology (AIST), Ibaraki, Japan
<http://junkato.jp/resume.html>