Hirotaka Hiraki

Curriculum Vitae

Graduate School of Interdisciplinary Information Studies The University of Tokyo
✉ *hiraki-uts1@g.ecc.u-tokyo.ac.jp*
My Webpage

Education

2022–present **Doctor Course, Computer Science & Engineering**, *The University of Tokyo*, Tokyo.
Human-Computer interaction, Human Augmentation, Vocal User Interface, Silent Speech, and Deep Learning
Advisor: Dr. Jun Rekimoto

2020–2022 **Master Course, Computer Science & Engineering**, *The University of Tokyo*, Tokyo.
Human-Computer interaction, Human Augmentation, Silent Speech, Telepresense, and Deep Learning
Advisor: Dr. Jun Rekimoto

2016–2019 : **Bachelor of Information and Communication Engineering**, *The University of Tokyo*, Tokyo.
Computer Science, Security, Malware Analysis, Computer Network
Advisor: Dr. Hiroshi Esaki

Publications

Peer Reviewed Papers

2022 **Yusuke Kunimi, Masa Ogata, Hirotaka Hiraki, Motoshi Itagaki, Shusuke Kanazawa, Masaaki Mochimaru**, E-MASK: A Mask-Shaped Interface for Silent Speech Interaction with Flexible Strain Sensors, In *Augmented Humans Conference 2022*.

2021 **Hirotaka Hiraki and Jun Rekimoto**, SilentMask: Mask-type Silent Speech Interface with Measurement of Mouth Movement, In *Augmented Humans 2021*.

Posters and Workshops

2022 **Hirotaka Hiraki,and Jun Rekimoto**, SilentWhisper: faint whisper speech using wearable microphone, In *UIST 2022 poster*.

2021 **Takuya Hara, Hirotaka Hiraki, Naoki Kimura, Hiromi Nakamura and Jun Rekimoto**, PoseTuner: Sonification Based Fine-Tuning of Pose with Unsupervised Learning, , In *HAA2021 CHI 2021 workshop*.

Research Experience

2022 – Present ***Development of Wearable and Speech Communication in Whispring***.
Developing wearable microphone and speech recognition system for whispering communication

Advisor : Dr.Shusuke Kanazawa, *Human Augmentation Research Center, National Institute of Advanced Industrial Science and Technology(AIST)*

2021 – 2022 ***Development of Wearable Devices Using Printed Circuits***.
Detecting and analyzing human motions using wearable printed circuits.

Advisor : Dr. Masaaki Mochimaru, *Human Augmentation Research Center, National Institute of Advanced Industrial Science and Technology(AIST)*

2019 – 2020 ***Computer Network and Cyber Security***.
Analysis of ransomware time series data to identify abnormal processing and verify the possibility of system recovery

Advisor : Dr. Hiroshi Esaki, *Professor at The University of Tokyo*

Work Experiences

2021 – 2022 ***Research Assistant at AIST***, *Software Engineer, Hardware Enginer*.
Development of Wearable Interface

2021 – 2022 ***Mitou Creator***, *Software Engineer, Hardware Enginer, Designer*.
Development of Wearable Fully Pose Estimation Devices using Unity, Deep Learning

2017 – 2021 ***Yoshidumi Co.***, *Software Engineer, Technical Writer*.
Development of web services using GCP, Java, Golang

Awards and Hounors

2022 The Univerisity of Tokyo, GSII, Best Master's Thesis

2022 Japan Student Services Organization(JASSO) Scholarships

2021 Information-technology Promotion Agency (IPA) MITOU Program

2021 Univerisity of Tokyo PhD Fellowship

2021 Best Presentation Award at Silent Speech Recogniiton Workshop (Domectic Workshop)

2021 Best Presentation Award at Environmental Art Society (Domectic Conference)

Computer skills

Languages Python, C/C++, C, javascript, Ruby, R, Golang, Java

Backend Ruby on Rails, Django, Apache, Mysql, GCP, AWS, Docker

Design Illustrator, Indesign, Photoshop, AfterEffect, Premier Pro

Others Deep Learning, 3D printer, Fusion360, Eagle, Unity