

Yudai Tanaka

PhD student at University of Chicago
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Education

University of Chicago Ph.D. Student in Computer Science, Advisor: Prof. Pedro Lopes	09/2020 – Present Chicago, United States
University of Tokyo Bachelor of Engineering in System Innovation, Advisor: Prof. Gjergj Dodbiba	04/2015 – 03/2020 Tokyo, Japan
National University of Singapore Exchange Student in University-Wide Student Exchange Program	08/2017 – 05/2018 Singapore

Full Paper Publications

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- Full-Hand Electro-Tactile without Obstructing Palmar Side of Hand.
In Proc. CHI 2023. Yudai Tanaka, Alan Shen, Andy Kong, Pedro Lopes. Acceptance Rate: 28.4%. **Best Paper Award (Top 1%)**
- LipIO: Enabling Lips as both Input and Output Surface
In Proc. CHI 2023. Arata Jingu, Yudai Tanaka, Pedro Lopes. Acceptance Rate: 28.4%.
- DigituSync: A Dual-User Passive Exoskeleton Glove That Adaptively Shares Hand Gestures.
In Proc. UIST 2022. Jun Nishida, Yudai Tanaka, Romain Nith, Pedro Lopes. Acceptance Rate: 25.9%.
- Electrical Head Actuation: Enabling Interactive Systems to Directly Manipulate Head Orientation.
In Proc. CHI 2022. Yudai Tanaka, Jun Nishida, Pedro Lopes. Acceptance Rate: 24.6%. **Best Demo Award**
- DualVib: Simulating Haptic Sensation of Dynamic Mass by Combining Pseudo-Force and Texture Feedback.
In Proc. VRST 2020. Yudai Tanaka, Arata Horie, Xiang 'Anthony' Chen. Acceptance Rate: 26.5%.

Poster/Demo Publications

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- Demonstrating Full-Hand Electro-Tactile without Obstructing Palmar Side of Hand.
In Proc. CHI 2023 Interactivity (Demo). Yudai Tanaka, Alan Shen, Andy Kong, Pedro Lopes.
- Demonstration of Electrical Head Actuation: Enabling Interactive Systems to Directly Manipulate Head Orientation.
In Proc. SIGGRAPH 2022 Emerging Technologies. Yudai Tanaka, Jun Nishida, Pedro Lopes.
- Demonstrating Electrical Head Actuation: Enabling Interactive Systems to Directly Manipulate Head Orientation.
In Proc. CHI 2022 Interactivity (Demo). Yudai Tanaka, Jun Nishida, Pedro Lopes.
- Understanding Crowdsourcing Requesters' Wage Setting Behaviors.
In Proc. CHI 2022 Late Breaking Work (Poster). Kotaro Hara, Yudai Tanaka.
- BulkScreen: Saliency-Based Automatic Shape Representation of Digital Images with a Vertical Pin-Array Screen.
In Proc. TEI 2020 Work in Progress (Poster). Yudai Tanaka, Arakawa Riku, Hiromu Kawarasaki, Kiyosu, Maeda.
- A Formative Study for Record-time Manual Annotation of First-person Videos.
In Proc. MobileHCI 2019 Late Breaking Results (Poster). Yudai Tanaka, Sohei Wakisaka, Masahiko Inami. **Best Poster Nominee**

Honors and Awards

Best Paper Award at ACM CHI	2023
Best Demo Award at ACM CHI	2022
Daniels Fellowship (award for selected incoming Ph.D. students) One-time stipend of USD 15,000.	2020
Nakajima Foundation Overseas Scholarship (Japanese Ph.D. fellowship, acceptance rate: 9%)	2020
Best Poster Nominee at ACM MobileHCI	2019

Invited Talks and Workshops

Interactive Systems based on Nervous Interception HCI Lab at Saarland University (hosted by Arata Jingu and Prof. Jürgen Steimle).	2023/04/21
Interactive Systems based on Nervous Interception University of British Columbia (hosted by Prof. Sydney Fels and Prof. Karon MacLean).	2022/08/12
Challenges to Unlock the Metaverse: Haptics, Gaze, Prototyping tools & more! SIGGRAPH 2022 Frontiers Workshop . with Pedro Lopes, Michael Nebeling, Shan-Yuan Teng, & Mark Billinghurst.	2022/08/10

Teaching

Teaching Assistant

CMSC 20300: Introduction to Human Computer Interaction, University of Chicago	Fall 2020-2022
CMSC 33240: Emergent Interface Technologies, University of Chicago	Winter 2021

Service

Organizing Committee

Poster chair for Augmented Humans	2023
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Program Committee

CHI Late Breaking Work	2023
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Session Chair

"Typing and Pointing" paper session at UIST	2021
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Reviewing

ACM CHI (Papers) with 1 special recognition for outstanding reviews	2020-2023
ACM UIST (Papers) with 1 special recognition for outstanding reviews	2022

Further reviewing: DIS ('23), World Haptics ('23), MobileHCI ('21), IEEE VR ('21), ISMAR ('22), AHS ('22), CHI alt.chi ('22), CHI Interactivity ('21-'22), CHI LBW ('22-'23), TEI WiP ('22), EICS LBW ('21).

Research Experience

UCLA HCI Research , University of California, Los Angeles Research Intern advised by Prof. Xiang 'Anthony' Chen	06/2019 – 09/2019 <i>Los Angeles, United States</i>
SMU HCI Research , Singapore Management University Research Intern advised by Prof. Kotaro Hara	01/2019 – 04/2019 <i>Singapore</i>
Information Somatics Lab , University of Tokyo Research Intern advised by Prof. Masahiko Inami	06/2018 – 12/2018 <i>Tokyo, Japan</i>

Selected Press Coverage

CBS CHICAGO . "Chicago neuroscientist helps woman with no sense of touch learn more about condition."	2023/02/09
UChicago CS News . "Head's Up: UChicago CS Grad Student Designs Device That Directs User's Head."	2022/07/26
Adafruit Blog . "Electrical Head Actuation (CHI22 talk) #WearableWednesday."	2022/05/04
New Scientist . "VR could use a muscle-stimulating device that forces your head to turn."	2022/05/03
GIZMODO . "These Electrical Probes Forcibly Steer Your Head Toward Lost Items."	2022/05/02
SYFY . "THIS VR SYSTEM TURNS YOU INTO AN NPC BY MOVING YOUR MUSCLES FOR YOU."	2022/05/01
VRScout . "Researchers Use VR/AR Tech To Control The Human Body."	2022/04/28