

Yudai Tanaka

PhD student at University of Chicago
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Education

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

Research Experience

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

Full Paper Publications

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- 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%. (to appear)
- Electrical Head Actuation: Enabling Interactive Systems to Directly Manipulate Head Orientation.
In Proc. CHI 2022. **Yudai Tanaka**, Jun Nishida, Pedro Lopes. Accepted with Minor Revision: Top 12.5%. **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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- 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 Demo Award (People's Choice) at ACM CHI 2022	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%) Monthly stipend of JPY 200,000 for three years.	2020
Best Poster Award Honorable Mention at ACM MobileHCI 2019	2019

Invited Talks and Workshops

Challenges to Unlock the Metaverse: Haptics, Gaze, Prototyping tools & more!

SIGGRAPH 2022 Frontiers Workshop. Pedro Lopes, Michael Nebeling, Shan-Yuan Teng, Mark Billinghurst, **Yudai Tanaka.**

Disappearing Haptic Actuators by Intercepting Nervous System.

University of British Columbia (hosted by Prof. Sydney Fels and Prof. Karon MacLean).

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

Session Chair

"Typing and Pointing" paper session at UIST

2021

Reviewing

ACM CHI (Papers) with **1 special recognition for outstanding reviews**

2020-2022

ACM UIST (Papers) with **1 special recognition for outstanding reviews**

2022

Further reviewing: MobileHCI ('21), IEEE VR ('21), ISMAR ('22), AHs ('22), CHI alt.chi ('22), CHI Interactivity ('21-'22), CHI LBW ('22), TEI WiP ('22), EICS LBW ('21).

Selected Press Coverage

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