

Chi-Jung LEE

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RESEARCH INTEREST

Human-Computer Interaction (HCI), Ubiquitous Computing (UbiComp), Sensing, Wearable, Tangible, E-Textile

EDUCATION

Cornell University

Ph.D. Student in Information Science

- Advisor: [Cheng Zhang](#)

Aug. 2022 – Present

Ithaca, New York, USA

National Taiwan University (NTU)

Master of Science in Computer Science and Information Engineering

- Master's Thesis Advisor: [Bing-Yu Chen](#)
- Thesis: HairTouch: Providing Stiffness, Roughness and Surface Height Differences Using Reconfigurable Brush Hairs on a VR Controller
- Graduation GPA: 4.12/4.3

Sep. 2019 – Jun. 2021

Taipei, Taiwan

National Tsing Hua University (NTHU)

Bachelor of Science in Computer Science

Bachelor of Business Administration in Management and Technology

- Undergraduate Research Advisor: [Hung-Kuo Chu](#) (Feb. 2018 – Jun. 2019)
- Received **Academic Excellence Award** (honored for top 5% in the department) three times over four years
- Graduation GPA: 4.06/4.3

Sep. 2015 – Jun. 2019

Hsinchu, Taiwan

PUBLICATION

Chi-Jung Lee*, Ruidong Zhang*, Devansh Agarwal, Tianhong Catherine Yu, Vipin Gunda, Oliver Lopez, James Kim, Sicheng Yin, Boao Dong, Ke Li, Mose Sakashita, Francois Guimbretiere, Cheng Zhang (2024). EchoWrist: Continuous Hand Pose Tracking and Hand-Object Interaction Recognition Using Low-Power Active Acoustic Sensing On a Wristband (*Contributed Equally)

CHI '24: Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems, Honolulu, HI, USA

Chi-Jung Lee, David Yang, Pin-Sung Ku, Hsin-Liu (Cindy) Kao (2024). SweatSkin: Rapidly Prototyping Sweat-Sensing On-Skin Interface Based on Microfluidics

IMWUT '24: Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies

Chi-Jung Lee, Chi-Huan Chiang, Ling-Chien Yang, Te-Yen Wu, Rong-Hao Liang, Bing-Yu Chen (2022). NFCStack: Identifiable Physical Building Blocks that Support Concurrent Construction and Frictionless Interaction

UIST '22: The 35th Annual ACM Symposium on User Interface Software and Technology, Bend, OR, USA

Huizhong Ye*, Chi-Jung Lee*, Te-Yen Wu*, Xing-Dong Yang, Bing-Yu Chen, Rong-Hao Liang (2022). Body-Centric NFC: Body-Centric Interaction with NFC Devices Through Near-Field Enabled Clothing (*Contributed Equally)

DIS '22: Designing Interactive Systems Conference, Virtual, Australia

Chi-Jung Lee, Hsin-Ruey Tsai, Bing-Yu Chen (2021). HairTouch: Providing Stiffness, Roughness and Surface Height Differences Using Reconfigurable Brush Hairs on a VR Controller

CHI '21: Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems, Yokohama, Japan

Chin-Yuan Lu*, Han-Wei Hsieh*, Rong-Hao Liang*, Chi-Jung Lee, Ling-Chien Yang, Mengru Xue, Jr-Ling Guo, Meng-Ju Hsieh, Bing-Yu Chen (2021). Combining Touchscreens with Passive Rich-ID Building Blocks to Support Context Construction in Touchscreen Interactions (*Contributed Equally)
CHI '21: Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems, Yokohama, Japan

POSTER & DEMO

Chi-Jung Lee, Hung-Kuo Chu (2018). Dual-MR: Interaction with Mixed Reality Using Smartphones
VRST '18: Proceedings of the 24th ACM Symposium on Virtual Reality Software and Technology, Tokyo, Japan
(Best Poster Award)

HONOR & AWARD

ETH's Student Summer Research Fellowship Jul. 2020 – Aug. 2020
One of the 15-20 accepted applicants selected out of 2880 applicants ETH Zurich, Zurich, Switzerland

- The fellowship provided by the Department of Computer Science at Eidgenössische Technische Hochschule Zürich (ETH Zurich) for select students to pursue a research project as part of a research group in the department

RESEARCH EXPERIENCE

SciFi Lab, Cornell University May. 2023 – Present
Ph.D. Student Ithaca, New York, USA

- Advisor: [Cheng Zhang](#)
- Developing smart sensing wearables

Hybrid Body Lab, Cornell University Aug. 2022 – May. 2023
Ph.D. Student Ithaca, New York, USA

- Advisor: [Cindy Hsin-Liu Kao](#)
- Developed on-skin interfaces for sweat sensing (Published in IMWUT, Vol. 7, No. 4)

CREST, The University of Tokyo Apr. 2022 – Jul. 2022
Research Assistant Tokyo, Japan

- Advisor: [Takeo Igarashi](#)
- Developed a design tool that facilitates the design and fabrication of deformable and stretchable circuits on hand-knitted fabrics

Interactive Graphics Laboratory, NTU Jul. 2021 – Apr. 2022
Research Assistant Taipei, Taiwan

- Advisor: [Bing-Yu Chen](#)
- Developed a scalable coil extender design on skin or garments that enables body-centric interactions for a commodity near-field communication (NFC) device (Published in DIS '22)
- Developed a portable rich-ID building block system based on NFC technology (Published in UIST '22)

Interactive Graphics Laboratory, NTU Sep. 2019 – Jun. 2021
Master's Student Taipei, Taiwan

- Advisor: [Bing-Yu Chen](#)
- Developed a pin-based handheld device providing tactile feedback using cosmetic brush hairs in virtual reality (Published in CHI '21)
- Developed two building block systems based on the ultra-high frequency (UHF) radio-frequency identification (RFID) sensing, rear-projection, and capacitive touch sensing in collaboration with Prof. [Rong-Hao Liang](#) from Eindhoven University of Technology (Published in CHI '21)

- Built and demonstrated a system of batteryless and wireless modular hardware designs of 2D touch sensor pads based on the UHF RFID technology

HCI Lab, NTU

Feb. 2020 – Aug. 2020

Project Collaborator

Taipei, Taiwan

- Advisor: [Mike Y. Chen](#)
- Developing a VR haptic device improving the comfort and the overall first-person viewing (FPV) experience

Computer Graphics & Vision Lab, NTHU

Feb. 2018 – Jun. 2019

Undergraduate Research Assistant

Hsinchu, Taiwan

- Advisor: [Hung-Kuo Chu](#)
- Developed a mixed reality interaction system enabling co-located collaboration of a head-mounted device and handheld smartphone (Poster Presentation at VRST '18)
- Built two online slot games

CoAI, Tsinghua University

Jul. 2017 – Aug. 2017

Visiting Student

Beijing, China

- Advisor: [Minlie Huang](#)
- Analyzed the algorithms and applications of four off-the-shelf chatbots
- Collected and labeled 5000+ dialogues for the development of a chatbot

TEACHING ASSISTANCE

Introduction to Rapid Prototyping and Physical Computing

Jan. 2024 – May 2024

INFO 4320, Prof. Cheng Zhang

Cornell University, Ithaca, NY, USA

Introductory Design and Programming for the Web

Aug. 2023 – Dec. 2023

INFO 1300, Prof. Kyle J. Harms and Prof. Benjamin Soltoff

Cornell University, Ithaca, NY, USA

Introduction to Data Science

Jan. 2023 – May 2023

INFO 2950, Prof. Benjamin Soltoff

Cornell University, Ithaca, NY, USA

Information Ethics, Law, and Policy

Aug. 2022 – Dec. 2022

INFO 1200, Prof. Steven Jackson and Prof. Gili Vidan

Cornell University, Ithaca, NY, USA

Computing in Humanities

Feb. 2020 – Jun. 2020

GenEdu1005, Prof. Jason S. Chang

NTU, Taipei, Taiwan

Introduction to Game Programming

Sep. 2018 – Jan. 2019

CS550300, Prof. Hung-Kuo Chu

NTHU, Hsinchu, Taiwan

PROFESSIONAL SERVICE

TAICHI X UIST Online Talk

Jul. 2021 – Oct. 2021

Event Planner

Taipei, Taiwan

- Organized a series of online talks regarding UIST (User Interface Software and Technology)
- Invited 13 speakers, including professors, researchers, engineers, and Ph.D. students

Communications and Multimedia Laboratory

Jun. 2020 – Jun. 2021

Purchaser

NTU, Taipei, Taiwan

- Researched and acquired equipment and materials worldwide
- Researched and recommended future purchases

OpenHCI Workshop

Aug. 2019

Program co-Chair

Taipei, Taiwan

- Organized a five-day workshop that introduced Human-Computer Interaction to select students in Taiwan
- Led a staff team of about 50

INVITED TALK

OpenHCI '23

Aug. 2023

Invited to share my journey of becoming an international Ph.D student in the USA

Virtual, Taiwan

- OpenHCI is a student-organized workshop advised by the Taiwanese Association of Computer Human Interaction

TAICHI '21

Jul. 2021

Invited to present the two papers accepted by CHI '21 at Best of HCI session

Virtual, Taiwan

- TAICHI is the top domestic HCI conference in Taiwan

LANGUAGE

Native in Mandarin

Fluent in English : IELTS: 7.5; TOEIC: 920; General English Proficiency Test: High-intermediate level