Chi-Jung LEE

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RESEARCH INTEREST

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

EDUCATION

Cornell University   Aug. 2022 – Present
Ph.D. Student in Information Science   Ithaca, New York, USA
- Advisor: Cheng Zhang

National Taiwan University (NTU)   Sep. 2019 – Jun. 2021
Master of Science in Computer Science and Information Engineering   Taipei, Taiwan
- 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

National Tsing Hua University (NTHU)   Sep. 2015 – Jun. 2019
Bachelor of Science in Computer Science   Hsinchu, Taiwan
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

PUBLICATION

Tianhong Catherine Yu, Guilin Hu, Ruidong Zhang, Hyunchul Lim, Saif Mahmud, Chi-Jung Lee, Ke Li, Devansh Agarwal, Shuyang Nie, Jinseok Oh, Francois Guimbretiere, and Cheng Zhang (2024). Ring-a-Pose: A Ring for Continuous Hand Pose Tracking
IMWUT '24: Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies

Tianhong Catherine Yu, Manru Mary Zhang*, Peter He*, Chi-Jung Lee, Cassidy Cheesman, Saif Mahmud, Ruidong Zhang, Francois Guimbretiere, Cheng Zhang (2024). SeamPose: Repurposing Seams as Capacitive Sensors in a Shirt for Upper-Body Pose Tracking (*Contributed Equally)
UIST '24: The 37th Annual ACM Symposium on User Interface Software and Technology, Pittsburgh, PA, USA

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 Aug. 2024 – Dec 2024

INFO 4320, Prof. Cheng Zhang Cornell University, Ithaca, NY, USA

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