Chi-Jung LEE

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RESEARCH INTEREST

Human-Computer Interaction (HCI), Human-Robot Interaction (HRI), Ubiquitous Computing (UbiComp), E-Textile, Sensing, Tangible, On-Skin Interface

EDUCATION

Cornell University

Aug. 2022 – Present

Ph.D. Student in Information Science

Ithaca, New York, USA

Advisor: <u>Cindy Hsin-Liu Kao</u> (Aug. 2022 – Present)

National Taiwan University (NTU)

Sep. 2019 – Jun. 2021

Master of Science in Computer Science and Information Engineering

Taipei, Taiwan

- Master Thesis Advisor: Bing-Yu Chen (Sep. 2019 Jun. 2021)
- 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

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, Oregan, 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 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*, <u>Chi-Jung Lee</u>, 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

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

POSTER & DEMO

<u>Chi-Jung Lee, Hung-Kuo Chu (2018). Dual-MR: Interaction with Mixed Reality Using Smartphones</u>

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

XR Hack Fest Jul. 2019

Best Student Project Award

Taipei, Taiwan

A nationwide three-day XR hackathon supported by the Taiwanese government

Senior Student Project Contest of College of Electrical Engineering and Computer Science Mar. 2019

Silver Medal Award

NTHU, Hsinchu, Taiwan

· Annual project contest of all the seniors in the College of Electrical Engineering and Computer Science at NTHU

Senior Student Project Contest of Department of Computer Science

Dec. 2018

Gold Medal Award

NTHU, Hsinchu, Taiwan

Annual project contest of all the seniors in the Department of Computer Science at NTHU

XR Hack Fest Jul. 2018

Second Place Taipei, Taiwan

· A nationwide three-day XR hackathon supported by the Taiwanese government

Jesus Christ Scholarship

Jun. 2018

Scholarship Recipient

NTHU, Hsinchu, Taiwan

- · Scholarship from Taiwan Imaging-Tek Corporation
- · Honored for one of the top students in the department

NTHU Exchange Scholarship to Mainland China

Jul. 2017

Scholarship Recipient

NTHU, Hsinchu, Taiwan

• Financial assistance to undertake an undergraduate research at Tsinghua University in China for 6 – 8 weeks in the summer

RESEARCH EXPERIENCE

Hybrid Body Lab, Cornell University

Aug. 2022 - Present

Ph.D. Student

Ithaca, New York, USA

- Supervisor: Cindy Hsin-Liu Kao
- · Developing on-skin interfaces

CREST, The University of Tokyo

Apr. 2022 - Jul. 2022

Research Assistant

Tokyo, Japan

- Supervisor: Takeo Igarashi
- Developing 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

- Supervisor: 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

Master Student Taipei, Taiwan

- · Supervisor: 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

- Supervisor: 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

Sep. 2019 - Jun. 2021

Undergraduate Research Student

Hsinchu, Taiwan

- Supervisor: 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

Beijing, China

Visiting Student

Supervisor: 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**

Information Ethics, Law, and Policy

Aug. 2022 - Present

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

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