

# Chi-Jung LEE

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## RESEARCH INTEREST

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Human-Computer Interaction (HCI), Ubiquitous Computing (UbiComp), E-Textile, Sensing, Tangible, Augmented / Virtual Reality (AR / VR)

## EDUCATION

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### 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

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**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**

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

## POSTER & DEMO

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**Chiao Fang, Shao-Yu Chu, Chi-Jung Lee, Yi-Hsuan Mao, Ching-Yi Tsai, Neng-Hao Yu, Mike Y. Chen (2022). TurnAhead: Improving First-person Viewing Experience using 3-DoF Rotational Haptic Cues**

*(Conditionally Accept) IEEE VR '22: 2022 IEEE Conference on Virtual Reality and 3D User Interfaces, Christchurch, New Zealand*

**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

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### 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**

### *Best Student Project Award*

Jul. 2019

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**

### **Interactive Graphics Laboratory, NTU**

Jul. 2021 – Present

#### *Research Assistant*

Taipei, Taiwan

- Supervisor: Bing-Yu Chen
- Developing a scalable coil extender design on skin or garments that enables body-centric interactions for a commodity near-field communication (NFC) device
- Developing a portable rich-ID building block system based on NFC technology
- Developing a design tool that facilitates the design and fabrication of deformable and stretchable circuits on hand-knitted fabrics

### **Interactive Graphics Laboratory, NTU**

Sep. 2019 – Jun. 2021

#### *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 – Present

#### *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

### *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

### *Visiting Student*

Beijing, China

- 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**

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### **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**

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### **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**

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### **TAICHI '21**

Jul. 2021

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

Virtual

- TAICHI is the top domestic HCI conference in Taiwan

## **LANGUAGE**

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### **Native in Chinese**

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