

# Ho Yin (Sam) Ng 吳浩賢

Graduate Student at College of Information Science and Technology (IST)

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## RESEARCH INTERESTS

I explore Human-AI collaboration and ethical AI applications, leveraging my experience in haptic feedback systems for Mixed Reality to push the boundaries of immersive technologies and create unprecedented human experiences.

## EDUCATION

### Pennsylvania State University (Penn State)

MSc in Informatics

Mentors: Dr. Ting-Hao 'Kenneth' Huang. GPA: 4.00/4.00.

University Park, PA, USA

Expected May 2025

### National Taipei University of Technology (Taipei Tech)

MDes in Interaction Design

Thesis: *MovableBlocks: Exploring Dynamic Furniture for Whole-body Interaction in Room-scale Substitutional Reality*

Mentors: Dr. Ping-Hsuan Han. GPA: 4.00/4.00.

Taipei, Taiwan

Jul 2023

### Hong Kong University of Science and Technology (HKUST)

BBA in Professional Accounting and Information Systems,

minor in Social Science and Design

*Upper Second-Class Honours (2:1)*

- Exchange Program, Tsinghua University, Beijing, China (Fall 2014)

Hong Kong

Nov 2016

## SELECTED AWARDS AND HONORS

Best Paper Award (UbiComp/ISWC'22 Adjunct)

2022

Bronze Prize - Global Region (The 31st Time Young Creative Award)

2022

Outstanding Overseas Chinese Graduate Student Scholarship (Ministry of Education, Taiwan)

2022 to 2023

## RESEARCH EXPERIENCE

### Penn State, Crowd-AI Lab

#### Graduate Research Assistant

Advisor: Dr. Ting-Hao 'Kenneth' Huang, Associate Professor

University Park, PA, USA

Nov 2023 to Present

### Taipei Tech, XR Lab

#### Graduate Research Assistant

Advisor: Dr. Ping-Hsuan Han, Associate Professor

Taipei, Taiwan

Dec 2021 to Jul 2023

## PUBLICATIONS

### **What Color Scheme is More Effective in Assisting Readers to Locate Information in a Color-Coded Article?**

Ho Yin Ng, Zeyu He, Ting-Hao K. Huang.

*IEEE Visualization Conference 2024 (VIS 2024).*

### **MovableBag: Substitutional Robot for Enhancing Immersive Boxing Training with Encountered-Type Haptic**

Luis Andres Mendez S., Ho Yin Ng, Zin Yim Lim, Yi-jie Lu, Ping-Hsuan Han.

*SIGGRAPH Asia 2022 XR (SA '22 XR).*

### **PressySofties: Explore multi-player squeeze interaction with conductive fabric cubes**

Ho Yin Ng, Chia-Hui Lin, Zin Yin, Lim, Yi-Jie Lu, Chi-Yu Lin, Ping-Hsuan Han.

*The Demonstrations track of 2022 ACM SIGCHI Conference on Computer-Supported Cooperative Work Social Computing (CSCW 2022 Demo).*

### **Demo: MovableBag: Mobile Device Integrating Haptics and Visual Feedback to Enhance Virtual Reality Experience of Sport Training**

Luis Andres Mendez S., Ho Yin Ng, Zin Yim Lim, Ping-Hsuan Han.

*The 8th Annual Conference of Taiwan Association of Computer-Human Interaction (TAICHI 2022).*

**Best Demo Award (1 out of 20 accepted demo papers)**

### **Demo: PressySofties: Utilize conductive-cloth cube to explore squeeze interaction among multi-users**

Ho Yin Ng, Chia-Hui Lin, Zin Yin, Lim, Yi-Jie Lu, Chi-Yu Lin, Ping-Hsuan Han.

*The 8th Annual Conference of Taiwan Association of Computer-Human Interaction (TAICHI 2022).*

### **MovableBag: Exploring Asymmetric Interaction for Multi-user Exergame in Extended Reality**

Luis Andres Mendez S., Ho Yin Ng, Ping-Hsuan Han.

*The 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp/ISWC' 22 Adjunct).*

**Best Paper (1 out of 8 accepted papers)**

### **PressyCube: An Embeddable Pressure Sensor with Softy Prop for Limb Rehabilitation in Immersive Virtual Reality**

Chain Yi Chu, Ho Yin Ng, Chia Hui Lin, Ping-Hsuan Han.

*IEEE International Conference on Multimedia and Expo 2022 (ICME 2022).*

## TEACHING EXPERIENCE

### **Penn State**

**Teaching Assistant**, College of IST

HCDD 440: Human-Centered Design and Development Capstone Course.

University Park, PA, USA

Jan 2024 to Present

Spring 2024

### **Taipei Tech**

**Teaching Assistant**, Department of Interaction Design

AC02509: Creating 360 Panoramic Virtual Reality Video.

AC06206: Game Media Design.

Taipei, Taiwan

Feb 2022 to Jun 2023

Spring 2022

Fall 2022

AC05207: Virtual Reality Application.

Spring 2023

**HKUST**

Hong Kong

**Instructional Assistant**, Department of ISOM

Jun 2016 to May 2017

ISOM5290: Information Systems Development Methodologies.

Spring 2017

ISOM3210: Information Systems Analysis and Design.

Spring 2017

ISOM3010: Information Systems Project Management.

Spring 2017

ISOM4100: Information Systems Auditing.

Fall 2016, Winter 2017

ISOM3230: Business Applications Programming.

Fall 2016

**INDUSTRY EXPERIENCE****HKUST**

Hong Kong

**Education Development Officer**, *Dept. of Computer Science & Engineering*

Jun 2017 to May 2021

**Baidu Inc.**

Shenzhen, China

**UX Design Intern**, *Department of Operations*

Sep 2015 to Jan 2016

**Urban Discovery**

Hong Kong

**Media Assistant**

Aug 2015 to Sep 2015

**Tencent**

Shanghai, China

**Game Designer Assistant**, *Aurora Studio*

Jun 2015 to Jul 2015

**ChangePlus**

Beijing, China

**Intern (Technical Group)**

Dec 2014 to Jan 2015

**Polljoy Inc.**

Hong Kong

**Developer Advocate**

Jul 2014 to Sep 2014

**IBM**

Hong Kong

**Analyst Programmer (Placement Student)**, *Global Business Services*

Aug 2013 to Jun 2014

**Forerunner Technology Limited**

Hong Kong

**User Acceptance Test (UAT) Tester**

Feb 2013 to May 2013

**KPMG**

Hong Kong

**Elite Programme Intern**

Aug 2012 to Jan 2013

**SKILLS****Technical Skills**

- *Programming*: Proficient in Java, VB.Net, and Web Development; Experienced with C# and Python
- *Immersive Technology*: Unity (for game development and VR/AR applications)
- *Research Data Analysis and Visualization*: Proficient in Excel; Experience with Python and R

## Design

- *UI/UX Design*: Proficient in Figma and Adobe XD
- *Graphic Design*: Proficient in Adobe Illustrator and Photoshop
- *Video Editing*: Experienced with Adobe Premiere Pro

## Languages

English (fluent), Chinese (fluent), Cantonese (native)

## SERVICE AND OUTREACH

**CHI 2024**

Honolulu, Hawaii, USA

**Student Volunteer**

May 2024

**Hong Kong Art Center**

Hong Kong

**Docent**

Jul 2019 to Jun 2021

*Last Updated: July 18, 2024*