

Po-Yao (Cosmos) Wang

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Research Interest

Human-Computer Interaction, Mixed Reality, Perception (e.g. Illusion. Dream), Game, Haptics

Education

Ph.D. in Human-Centred Computing, Information Technology

Monash University

Melbourne, Australia

Feb. 2023 – Current

◦ Advisors: Florian 'Floyd' Mueller and Nathan Semertzidis

MSc in Computer Science and Information Engineering

National Taiwan University

Taipei, Taiwan

Sept. 2019 – Jun. 2021

◦ GPA:4.11/4.3

◦ Advisor: Lung-Pan Cheng

BSc in Computer Science (Program of Computer and Electrical Engineering)

National Chiao Tung University

Hsinchu, Taiwan

Sept. 2015 – Jun. 2019

◦ GPA:4.19/4.3 (Rank: 2/31)

◦ Supervisor: Li-Wei Chan

Research Publications

- LuciEntry: A Modular Lucid Dream Induction Prototype | CHI '24 Late-Breaking Work, Video Showcase**
Po-Yao (Cosmos) Wang*, Nathaniel Lee Yung Xiang*, Rohit Rajesh, Antony Smith Loose, Nathan Semertzidis, Florian 'Floyd' Mueller
- LuciEntry HOME: An Anywhere Lucid Dreaming Induction Prototype | CHI '24 Video Showcase**
Po-Yao (Cosmos) Wang*, Nathaniel Lee Yung Xiang*, Rohit Rajesh, Antony Smith Loose, Nathan Semertzidis, Florian 'Floyd' Mueller
- DreamCeption: Towards Understanding the Design of Targeted Lucid Dream Mediation | CHI '24 Video Showcase**
Po-Yao (Cosmos) Wang*, Nathaniel Lee Yung Xiang*, Rohit Rajesh, Antony Smith Loose, Nathalie Overdeest, Nathan Semertzidis, Florian 'Floyd' Mueller
- LuciEntry: A Modular Lab-Based Lucid Dream Induction Prototype | CHI '24 Video Showcase**
Po-Yao (Cosmos) Wang*, Nathaniel Lee Yung Xiang*, Rohit Rajesh, Antony Smith Loose, Nathan Semertzidis, Florian 'Floyd' Mueller
- Pneunocchio: A playful nose augmentation for facilitating embodied representation | UIST '23 Adjunct**
Aryan Saini, Srihari Sridhar, Arushi Raheja, Rakesh Patibanda, Nathalie Overdeest, Po-Yao (Cosmos) Wang, Elise Van Den Hoven, Florian 'Floyd' Mueller
- Game Illusionization: A workflow to apply optical illusions to video games | UIST '21**
Po-Yao (Cosmos) Wang, Cong-He Xu, Ping-Yi Wang, Hsin-Yu Huang, Yu-Wei Chang, Jen-Hao Cheng, Yu-Hsin Lin, Lung-Pan Cheng
- Impossible Staircase: Vertical Real Walking in an Infinite Virtual Tower | IEEE VR '21**
Jen-Hao Cheng, Yi Chen, Ting-Yi Chang, Hsu-En Lin, Po-Yao (Cosmos) Wang, Lung-Pan Cheng
- Haptic-go-round: A Surrounding Platform for Encounter-type Haptics | CHI '20**
Hsin-Yu Huang, Chih-Wei Ning, Po-Yao (Cosmos) Wang, Jen-Hao Cheng, Lung-Pan Cheng

Honors and Awards

Bachelor Scholarship Funded by MOST

Scholarship for the independent study, funded by Ministry of Science and Technology in Taiwan

Hsinchu, Taiwan

Sept. 2018 – Jan. 2019

Zhu Shun Yi He Qin Scholarship

4000 dollars scholarship for top 1% of students at National Chiao Tung University

Hsinchu, Taiwan

Jun. 2018

Dean's List *6

Recognition for 5% of students in academics 6 times at National Chiao Tung University

Hsinchu, Taiwan

Sept. 2015 – Jun. 2018

Core Subject Awards

Awarded for Discrete Math and Data Structures at National Chiao Tung University

Hsinchu, Taiwan

Jan. 2016 – Jan. 2017

1st Prize of Smart Life Group in 2016HackNTU

Awarded the 1st prize of smart life group in 2016 National Taiwan University Hackathon

Taipei, Taiwan

Aug. 2016

Intern & TA Experiences

Freelance for VR Game Development

Intelligent Jet Biomedical

Taipei, Taiwan

Sept. 2022 – Nov. 2022

- Developed two VR rehabilitation games for the elderly

Teaching Assistant for Introduction to Python

National Taiwan University

Taipei, Taiwan

Oct. 2020 – Dec. 2020

- Taught 34 beginners how to code in Python

Intern for Social Casino

XIANG SHANG GAMES International Co., Ltd.

Taichung, Taiwan

July 2018 – Aug. 2018

- Learned the MVC model for casino game and Cocos2D-x game engine

- Tested and Debugged for *Bravo Casino*

Teaching Assistant for Linear Algebra

National Chiao Tung University

Hsinchu, Taiwan

July 2016 – Aug. 2016

- Taught 2 of 6 chapters for 20+ students

- Being TA as a freshman

Teaching Assistant for Introduction to Computers and Programming

National Chiao Tung University

Hsinchu, Taiwan

Sept. 2015 – Jan. 2016

Academic Activities

Organizer for Pre-CHI'22 before CHI'22 for 86 people

Pre-CHI is a cross-school event for Taiwanese students to get feedback before CHI's submission

Virtual

Aug. 2021

Host for TAICHI X UIST session 1: UIST Community in TAIWAN for 103 people

An event to introduce UIST for Taiwanese.

Virtual

Sept. 2021

TAICHI is a local conference for Human-Computer Interaction in Taiwan

Exchange student at the University of Illinois at Urbana-Champaign

Champaign, IL, United States

Jan. 2019 – May 2019

Selected Game Design/Development Experiences

Dungeon of Chinese Dark Chess

A rogue-lite Chinese Dark Chess video game

Virtual

Mar. 2021 - Current

- Lead a group of 6 members

- Design the core mechanics, 100+ chess abilities, enemy AI, story, and user interface

- Designed a MVC model with ScriptableObject, UnityEvent, and Unity Editor for maintainability and flexibility

Ruminating

An alchemy game

Taipei, Taiwan

Awarded Best Artistic Design Prize in 2019 Drunk Game Jam

Nov. 2019

- Led a group of 6 members

- Designed the core mechanics

- Implemented the elements (e.g. 20+ foods) for the alchemy system

The One

A first-person view real-time strategy game

Hsinchu, Taiwan

Nov. 2018 - Jan. 2019

- Led a group of 3 members

- Designed the core mechanics

- Implemented the summon system with gesture recognition

- Implemented the player and summoned monsters for battle system

VR Fisher

A fish frenzy-like Virtual Reality game

Hsinchu, Taiwan

Mar. 2018 - Jun. 2018

Awarded Best Interactive Design Prize in 2018 NCTU ARVR Festival

- Designed the core mechanics
- Implemented the battle, boss fight event, and hook event system
- Implemented the factory pattern with UnityEvent to spawn 1000+ fish

Eternal Melody

A rhythm-role playing game

Taipei, Taiwan

Dec. 2016 - Jun. 2017

- Designed the core mechanics
- Implemented the elements (e.g. monsters, players, and skills) for the battle system
- implemented the shop and inventory system
- Implemented the user interface for the main scene

Skills

Programming	C#, Unity, C/C++, Python (Pytorch, Scipy), JavaScript
Soft Skills	Game Design, Project Management (Agile), Teaching