



# SHIH YU MA

## 馬世宇 LEO

RESEARCHER

### CONTACTS



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### PROFILE

I'm a passionate researcher with a focus on cutting-edge technologies such as mixed reality, artificial intelligence, machine learning, neuroscience, and haptic devices.

### EDUCATION



**Master of Design | 2020-2023**

**National Taiwan University of Science and Technology (Advisor. Dr. Neng-Hao Yu)**

- **Thesis:** Reducing Cybersickness in Virtual Reality Driving Experiences Using Head-Mounted Vibrational Feedback Device
- **Research Assistant,** Intelligent User Interfaces(IUI) Lab
- **TA** of Interactive Storytelling in Mixed Reality, Creative Coding



**Bachelor of Science | 2016-2020**

**National Taiwan University of Science and Technology**

- Double major in **Electrical Engineering** and **Industrial Design**
- **Graduation Project:** Parallel Vacation - 2020 Young Pin Design Award in Social Design
- **Activities and societies:** Director of Student Association in Design Department

### EXPERIENCE



**Visiting Researcher | 2023.2-2023.8**

**University of Colorado Boulder, Center for the Brain, AI, and Child (Advisor. Dr. Tom Yeh)**

- Worked on project that combines mixed reality with functional near-infrared spectroscopy (fNIRS).



**Mixed Reality Developer | 2021.12-2022.9**

**Corma New Media**

- Worked on AR and VR application developing
- Developed project on Hololens, Quest, iOS and Android platforms

### PUBLICATION



Neng-Hao Yu, **Shih-Yu Ma**, Cong-Min Lin, Chi-Aan Fan, Luca E. Tagliatela, Tsai-Yuan Huang, Carolyn Yu, Yun-Ting Cheng, Ya-Chi Liao, and Mike Y. Chen. DrivingVibe: Enhancing VR Driving Experience using Inertia-based Vibrotactile Feedback around the Head. ACM MobileHCI 2023 DOI: [10.1145/3604253](https://doi.org/10.1145/3604253)



**Shih-Yu Ma**, Nolan Robert Brady, Xu Han, Neng-Hao Yu, and Tom Yeh. 2023. Exploring Mixed-Reality for Enhancing Driver Warning Systems: A Preliminary Study on Attention-Shifting Methods and Hazard Perception. ACM AutoUI 2023 DOI: [10.1145/3581961.3609868](https://doi.org/10.1145/3581961.3609868)



Luca E. Tagliatela, Chiao-Ju Chang, Shu-Wen Chen, Yi-Han Chang, Chang-Min Chen, Zih-Huei Yang, Tsung-Min Lin, **Shih-Yu Ma**, Neng-Hao Yu, and Mike Y. Chen. Alice in Gravityland: Augmenting Gravity Experiences with Around-the-Head Vibrotactile Feedback and Illusory Tactile Motion. ACM SIGGRAPH 2023 Immersive Pavilion DOI: [10.1145/3588027.3595591](https://doi.org/10.1145/3588027.3595591)



**Shih-Yu Ma**, Cong-Min Lin, Chung-Wei Wang, Neng-Hao Yu, and Mike Y. Chen. InertiaVibe: Low-fidelity Simulation of Inertia using Head-mounted Vibrotactile Feedback to Reduce Cybersickness and Enhance VR Experience. ACM UbiComp/ISWC 2022 DOI: [10.1145/3544793.3561319](https://doi.org/10.1145/3544793.3561319)