Jianhui YAN

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https://yimkf.github.io/

EDUCATION

Research Intern 06/2024 – 09/2024
Human Computer Interaction Lab at Saarland University Saarbrücken, Germany
Research advisor: Prof. Jürgen Steimle's

M.S. Electronic Information Engineering 09/2022 – present
School of Electronic and Information Engineering,South China University of Technology Guangzhou, China
Research advisor: Prof. Lin Shu

B.S. Information Engineering 09/2018 – 06/2022
School of Electronic and Information Engineering, South China University of Technology Guangzhou, China
GPA: 3.71/4.0

RESEARCH INTERESTS

Human Computer Interaction (HCI), Wearable Haptic System, Virtual/Augmented Reality (VR/AR), Force Feedback

PROJECTS

UIST 2024 Project: EMS-Actuated Hand-Objects: Leveraging the Loss of SoA Caused by EMS to Make Hands Serve Better as Virtual Objects
Rejected, now preparing for the next submission
My Contributions:

- **1.** A **novel concept of leveraging the loss of SoA** caused by EMS to make the **stimulated hand serve better as a virtual object**
- 2. **Proposal** of a highly reproducible **electrode layout** with a clear anatomical guide for **actuating fingers via EMS** and **inducing** users to **pose 8 gestures** with it
- 3. An **interaction system** that combined **EMS actuation, deep learning model, and data glove** to enable users to perform **gestural object retrieval tasks** and be involved in **interactive scenarios** easily and immersively

CHI 2025 Project: A Wearable Haptic device project
Working with **Arata Jingu** under **Prof. Jürgen Steimle's** supervision, finally **submitted a paper to CHI 2025**
My Contributions:

- 1. Contributing to the **idea** and the **application** of the paper
- 2. Implementing a **complex Mixed Reality (MR) Interaction** system for **Quest 3**
- 3. Participating in the **wearable mobile device** implementation, such as the communication between the computer and Quest 3

SKILLS

MR Interaction Implementation
Developing built-in Mixed Reality (MR) interaction application for Quest 3

Electrical Muscle Stimulation
Actuating gestures based on EMS, Performing experiments on human hands

Computer Skills
Unity3D(C#), Python, Git, Matlab, Arduino, Neural Network

AWARDS

2020 National Undergraduate Mathematical Contest in Modeling 09/2020
Second Prize of Guangdong Province

2020 Guangdong Undergraduate Electronic Design Competition 11/2020
Second Prize

Scholarship

- **National Inspirational Scholarship**
- **2019 Second-class Scholarship of South China University of Technology**
- **2020 "Hongping Evergreen Fund" Student Science and Technology Innovation Third-class Scholarship (2 items)**
- **Lixin Stipend**

LANGUAGES

English	**Cantonese**	**French**
IELTS: 7	Native	A1

TEACHING EXPERIENCE

Digital system design 09/2023 – 12/2023
Teaching Assistant South China University of Technology

Digital logic circuit 03/2023 – 06/2023
Teaching Assistant South China University of Technology

SERVICE

Student volunteer 07/2024
EuroHaptics 2024 Lille, France