# Jianhui YAN

#### **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 Ranking: 4/16

## 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

#### 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 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

#### **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	Aı

# **TEACHING EXPERIENCE**

Digital system design

09/2023 - 12/2023

Teaching Assistant

South China University

of Technology

Digital logic circuit

03/2023 - 06/2023

South China University of Technology

Teaching Assistant