

# Jianhui YAN

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## EDUCATION

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### Research Intern

Human Computer Interaction Lab at Saarland University

Research advisor: Prof. Jürgen Steimle's 🔗

06/2024 – 09/2024

Saarbrücken, Germany

### M.S. Electronic Information Engineering

School of Electronic and Information Engineering, South China University of Technology

Research advisor: Prof. Lin Shu 🔗

09/2022 – present

Guangzhou, China

### B.S. Information Engineering

School of Electronic and Information Engineering, South China University of Technology

GPA: 3.71/4.0 Ranking: 4/16

09/2018 – 06/2022

Guangzhou, China

## RESEARCH INTERESTS

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

## PROJECTS

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### 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

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### 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

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<b>2020 National Undergraduate Mathematical Contest in Modeling</b> Second Prize of Guangdong Province	09/2020
<b>2020 Guangdong Undergraduate Electronic Design Competition</b> Second Prize	11/2020

### 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

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<b>English</b> IELTS: 7	<b>Cantonese</b> Native	<b>French</b> A1
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## TEACHING EXPERIENCE

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<b>Digital system design</b> Teaching Assistant	09/2023 – 12/2023 South China University of Technology
<b>Digital logic circuit</b> Teaching Assistant	03/2023 – 06/2023 South China University of Technology

## SERVICE

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<b>Student volunteer</b> EuroHaptics 2024	07/2024 Lille, France
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