

# Jianhui YAN

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🔗 <https://yimkf.github.io/>

## EDUCATION

### Research Intern

Human Computer Interaction Lab at Saarland University

Research advisor: Prof. Jürgen Steimle's [🔗](#)

06/2024 – 09/2024

Saarbrücken, Germany

### Exchange Student

Polytech Nantes

01/2024 – 05/2024

Nantes, France

### 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

09/2018 – 06/2022

Guangzhou, China

## RESEARCH INTERESTS

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

## PUBLICATION

### Under Review

EMS Hand Prop: Leveraging the Loss of SoA Caused by EMS to Make Hands Serve Better as Virtual Objects

Jianhui Yan, Jiesi Zhang, Haoqiang Hua, Wenxuan Wu, Hongnan Lin, Qiwei Xiong, Jianxiu Jin, Lin Shu.

Submitted to the **International Journal of Human-Computer Studies** [🔗](#)

### Rejected and preparing for resubmission

CHI 2025 Paper: A Mobile and Wearable Haptic Device (Confidential)

Arata Jingu, Jianhui Yan, Maja Fehlbeg, Roland Bennewitz, Jürgen Steimle.

Working with Arata Jingu [🔗](#) under Prof. Jürgen Steimle's [🔗](#) supervision as a co-author. Unfortunately, the paper is rejected and **confidential** as we are working on it currently.

## RESEARCH EXPERIENCE

### EMS Hand Prop: Leveraging the Loss of SoA Caused by EMS to Make Hands Serve Better as Virtual Objects

- A novel concept of leveraging the loss of SoA caused by EMS to make the **stimulated hand serve better as a virtual object**
- **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
- An **interaction system** that combined **EMS actuation** and **data-glove-based gesture recognition** to enable users to perform **gestural object retrieval tasks** and be involved in **interactive scenarios** easily and immersively

### CHI 2025 : A Mobile and Wearable Haptic Device (Rejected and preparing for resubmission)

- **VR/MR Software Development:** Developed a built-in app for Oculus Quest 3 within a mixed reality (MR) environment, including several application scenarios.
- **Prototyping:** Established the communication between Quest 3, haptic devices, and mobile computers, enabling a fully mobile system.
- **Research Contribution:** Contributed to brainstorming and ideation for the paper, exploring multiple application possibilities.

## SKILLS & LANGUAGE

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### MR Interaction Implementation

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

### Hardware & Software Skills

- Software: Unity3D(C#), Python, Git, Matlab, Neural Network
- Hardware: Electrical Muscle Stimulation, Arduino, Wearable Systems

### Language:

IELTS: 7 ; French:A1

## AWARDS & SCHOLARSHIP

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### 2020 National Undergraduate Mathematical Contest in Modeling

09/2020

Second Prize of Guangdong Province

### 2020 Guangdong Undergraduate Electronic Design Competition

11/2020

Second Prize

### National Inspirational Scholarship

2020

### Second-class Scholarship of South China University of Technology

2019

"Hongping Evergreen Fund" Student Science and Technology Innovation Third-class  
Scholarship (2 items )

2020

## TEACHING EXPERIENCE & SERVICE

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### EuroHaptics 2024

07/2024

Student Volunteer

Lille, France

### 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