

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

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.

PROJECTS

UIST 2024 Project: EMS Hand Prop: Leveraging the Loss of SoA Caused by EMS to Make Hands Serve Better as Virtual Objects (Rejected, now has been resubmitted)

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
- EMS actuation,
- 3. 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 Project: A Mobile and Wearable Haptic Device (Rejected and preparing for resubmission)

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

IELTS: 7

Cantonese

Native

French

A1

TEACHING EXPERIENCE

Digital system design

Teaching Assistant

09/2023 – 12/2023

South China University
of Technology

Digital logic circuit

Teaching Assistant

03/2023 – 06/2023

South China University
of Technology

SERVICE

Student volunteer

EuroHaptics 2024

07/2024

Lille, France