

Academic Resume

Name: Haoran Guo Email: jp275417419@gmail.com

Academic Website: <https://williamalexanda.github.io/Haoran-Academic-Web/>

Age: 24 Interest: Tactile sensor; Human Robot Interaction; Dexterous Manipulation



Education Background

2019.09 – 2023.06 Wuhan University of Technology(CN) B. Eng Automation (Wearable Robotic)

2022.12- 2023.05 Westlake University(CN) Visiting Content: Nano Processing and Wireless Sensor

2024.08- 2025.12 Oklahoma State University(USA) M.Sc. Robotic (Tactile Sensor & Dexterous Hand)

Skill: Sensor Design & Principle, Circuit Design, Reinforcement Learning, Robot Kinematics, Mujoco, OpenAI Gym,

Issac Lab Undergraduate GPA: 81.5/100 Graduate GPA: 3.8/4 TOEFL-90

Research Experience

1. "Intelligent Leg Exoskeleton Prosthesis" Leader 2020.12 – 2022.9 Complete with Excellence

China National Innovation and Entrepreneurship Training Program Grant #S202110497234

- Designed a smart, bionic leg exoskeleton that could be used by people with disabilities
- Made research about a wireless group control sensor to accurately detect human motion data in real time

2. "Impact of Tactile Sensor Quantities and Placements on Robotic Hand" Leader 2024.02 – Now

- Explore the impact of tactile sensor of Shadow Hand under Mujoco and OpenAI Gym Simulation
- Evaluate the optimized sensor configuration and anti-interference ability under several tasks

3. "Multi-Modal Thermostatic Tactile Sensor" Leader 2024.10 – Now

- Developed a multi-modal tactile sensor with normal/shear force sensing and temperature regulation
- Complete grasping tasks on Allegro Hand with this tactile sensor

Scientific Research Outcome (Click title to preview)

- China National Invention patent "[A kind of leg exoskeleton prosthesis for the disabled](#)"
Student First Author. CN202010987051.3
- IEEE ICARM 2022 "[Reliability Verification of Human Motion Data Based on SlimeVR](#)" First Author
- arXiv "[Learning with Less: Optimizing Tactile Sensor Configurations for Dexterous Manipulation](#)"
"[Bi-directional Momentum-based Haptic Feedback and Control System for Dexterous Telemanipulation](#)" 1/2 Author 2025
- IROS 2025 "[Bio-Skin: A Cost-Effective Thermostatic Tactile Sensor with Multi-Modal Force and Temperature Detection](#)" Accept First Author Open Sourced
- IROS 2025 "[Adaptive Anomaly Recovery for Telemanipulation: A Diffusion Model Approach to Vision-Based Tracking](#)" Accept Second Author

Award & Funding

- National college student life science competition **National Third Prize**
- National Innovation and Entrepreneurship Program **Outstanding Completion (1,250USD Funding)**
- Excellent Graduate and Graduation Design
- Fully funded Research/Teaching Assistant in Oklahoma State University **(45,000USD/Year)**