GIANNI ZHANG

ENGINEERING

Sheffield, UK | gzhang1819298200@gmail.com
LinkedIn: www.linkedin.com/in/gianni-zhang-313398307 | **GitHub:** https://github.com/gzhang33

EDUCATION

Master of Engineering, The University of Sheffield   **Sept. 2021 - June 2025**

with Class Two Division One Honors in MENG Electrical and Electronic Engineering

TECHNICAL SKILLS

Hardware & Embedded Systems：
- Circuit Design & Simulation
- GPS + WIFI Integration
- Microcontrollers

Programming Languages & Tools:
Python, C, HTML, PHP, React, MATLAB, LTspice, Arduino IDE

Software Development:
- Full-stack development
- Web Development
- Git

PROFESSIONAL EXPERIENCE

E-commerce b2b website   **Aug. 2025 - Sept. 2025**
- Designed a modular, frontend-backend separated B2B showcase platform (React + PHP REST API).
- Developed a multilingual B2B product showcase frontend.
- Delivered admin panel for product CRUD, media, contact messages, and AI-assisted multilingual translation (6 languages) with a secure TOTP 2FA login.

Rental vehicle project   **Oct. 2024 - May 2025**
- Developed a real-time GPS tracking system by integrating an AT6668 GPS module with an Arduino UNO R4 WIFI microcontroller for live vehicle data acquisition.
- Applied a four-layered IoT model (Sensing, Networking, Service, Interface) to systematically structure the platform's architecture and data flow.
- Designed and deployed of a full-stack EV rental and tracking platform by assistance with AI.

Investigate the attack in Approximate Computing   **Oct. 2023 - May 2024**
- Analyzed the impact of hardware Trojans on image processing quality and precision within Approximate Computing systems.
- Utilized MATLAB to simulate hardware attacks integration and activation within the Sobel filter for edge detection.

Microcontroller-based lock   **Oct. 2022 - Jan. 2023**
- Designed and developed a microcontroller-based password lock system, encompassing both hardware and software aspects for a secure door access solution.

ADDITIONAL EXPERIENCE

- **Departmental Student Ambassador at Open Day**   June 2025
- **Ambassador in Women in Control**   July 2024
- **Session Ambassador in EEE Summer School**   July 2024
- **Basketball match organizer**   April 2021

ADDITIONAL INFORMATION

- **Languages:** Mandarin: Native speaker; English: Proficient (IELTS 6.5)
- **Awards/Activities:** International Undergraduate Merit Scholarship (University of Sheffield, 2021-2025)