CHIH CHIANG YANG

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EDUCATION

University of Manchester – *BEng Electrical and Electronic Engineering* Manchester, U.K. | Sep 2023 – Jun 2026

- First year result: 86%
- Second year result: 82.4%
- Relevant Modules: Digital System (89%); C Programming (91%); Electronic Projects (96%); Microcontroller (86%)

Embedded system project (Autonomous Buggy) – *University Research Project* Manchester, U.K. | Sep 2024 – June 2025

- First place in technical demonstration, third place in final race out of 50 Group
- Fabricated an Arm-based autonomous buggy; integrated TCRT5000 sensors with custom PID control algorithms, achieving top-tier precision in line-following tasks
- Computed software architecture using Object-oriented programming to fully automate the buggy's operation
- Analysing motor characteristic for torque calculation and gear choosing

Wearble AI device – *Third Year Project* Manchester, UK | July 2025 – Present

- Engineered a voice-enabled "Second Brain" utilizing RAG architecture for context-aware long-term memory retrieval
- Designed a custom PCB featuring ESP32-S3, I2S audio, and a precision Battery Management System (BMS)
- Developed BLE firmware for real-time streaming (<200ms) and a React Native app to orchestrate AI agents
- Created the mechanical chassis in Fusion360, utilizing DFM principles to optimize ergonomics and assembly

EXPERIENCES

Summer Research Intern – *Quantum Computing Lab, University of Manchester* Manchester, UK | Jun 2025 – Sep 2025

- Designed and tested PCB-level temperature-sensing electronics for a quantum device
- Developed control circuitry for low-power and high-power heaters with strict noise constraints
- Investigated FPGA and SDR-based communication methods for system expansion

Light Guiding Systems Technology – *Electronic Engineer Internship* Manchester, UK | Jun 2024 – Sep 2024

- Processed signals using wireless communication between devices, enabling continuous integration
- Progressing Python algorithm for visual mapping and route finding using the DFS (Depth-First Search) algorithm
- Engineered DFM (Design for Manufacture) ready PCB layouts and Fusion360 enclosure models, balancing functional requirements with assembly constraints

Manchester Robotics Society – *Project Coordinator* Manchester, UK | Jun 2023 – Sep2024

- Executed workshops and weekly sessions for 60+ society members
- Coordinated the design and deployment of robotics software in competitive environments, improving team performance
- Presented Fusion360 3D Modelling tutorial to over 50 society members
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Onvoice – *Founder* Manchester, UK | July 2025– Present

- B2B Live event assistant tool that provides live transcription, chatbot, and Q&A to attendees
- Got into GC Angels accelerator with 12% acceptance rate
- Beta testing with 7 organisations including Generator UK, Unit M, SuperTeam UK and University lecturers, 200+ signups

Branchify – *Project Leader* Manchester, UK | Sep 2024 – June 2025

- Spearheaded product lifecycle from ideation to market validation
- Organised a cross-promo event that helped local business grow Instagram followers by 200%
- Achieved 250+ early sign-ups through social media and community engagement
- Won 2nd place in a 3-day university startup competition, competing against over 60 startup ideas and 20 teams in the final round
- Led a team of 5 to build our first MVP and continuously pitched to students, businesses and partners

Accelerate Me – *Head of Growth* Manchester, UK | Sep 2024 – Present

- Biggest student-led startup accelerator in Northern England, 68M follow on funding raised by cohort up to date

- Hosted hackathon partner with Lovable, 11Labs, and Quanser for growth of the community, over 200+ turnout
- Planning workshops and events for 15+ student founders to help them grow business idea from 0

Manchester Satellite Development Group – *Electronic and Descent Control Leader* Manchester, UK | Sep 2023 – Jun 2024
- Generated C++ control systems for satellite descent and data processing
- Constructed main body and descent structure of the CanSat using Fusion360, showcased spatial reasoning ability
- Designed and manufactured the CanSat chassis using Fusion360 and 3D printing; optimized structural integrity while achieving a 30% reduction in PCB footprint

EXTRA-CURRICULAR ACTIVITIES

Sony – *Hackathon Winner* Manchester, UK | Mar 2025
- Developed BagAlert, an AI-powered smart surveillance system to prevent theft of unattended belongings on campus
- Built an RFID check-in system using ESP32 + RC522 to verify user identity and communicate via MQTT
- Integrated Sony IMX500 AI camera with Raspberry Pi 5 for real-time object detection and event monitoring
- Designed a React + FastAPI + Socket.io web interface for real-time alerts and live video feed
- Won 1st place out of 30 teams, presented to Sony engineers and judges

Google Developer Student Clubs– *Hackathon Winner* Manchester, UK | Apr 2024
- Developed a hand-tracking and eye-tracking Python algorithm for enhanced accessibility, utilizing MediaPipe library
- Produced a scanning keyboard algorithm that enables users to type letters using just two keys
- Achieved first place out of 15+ teams in the competition

Hackathon-Coupang– *Hackathon* Seoul, Incheon | Aug 2024
- Identified key issues affecting Coupang's market breakthrough among Taiwanese
- Launched an innovative short video platform using React, targeting the younger generation in Taiwan
- Produced and pitched the solution, emphasizing user experience and scalability

Quadcopter Develop– *Personal Project* Manchester, UK | Jun 2024 – Jul 2024
- Programmed stabilization algorithms in C++, using PID control for precise flight stability
- Implemented sensor feedback systems, refining the software to improve quadcopter performance

Extraterrestrial Rover– *Hack-A-Bot Competition* Manchester, UK | Mar 2024
- Structured the design and construction of a space rover using SOLIDWORKS and 3D printing
- Integrated obstacle detection using ESP-32 CAM and remote control via HC-05 chip

Spider Robot– *Personal Project* Manchester, UK | Mar 2024 – Apr 2024
- Designed a spider robot with custom electronic schematic and CAD model, utilizing a 3D printer for fabrication
- Operated the Arduino Nano for precise control, enabling complex movements via a smartphone interface

Robot Fighting Competition– *Competition* Manchester, UK | Mar 2024 – Apr 2024
- Created a custom robot for a competition, showcasing skills in 360-degree CAD design, circuitry, and problem-solving
- Led the university team in optimizing robot performance and addressing challenges in competitive environments

SKILLS & INTERESTS

Skills: Leadership, Rapid Prototyping, PCB Design (EasyEDA, Kicad, Altium), CAD (Fusion360, SolidWorks), Design for Manufacture, Agile Project Management
Languages: English (Proficiency), Korean (Native), Mandarin (Native)
Interests: Tennis, Basketball, Chess, LEGO, 3D designing, Cooking, Reading