

Yang Zhenzhao

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Education

National University of Singapore

Bachelor of Engineering in Computer Engineering

Aug 2024 - Present

Hwa Chong Institution

Jan 2016 – Dec 2021

Experience

Massivue

May 2025 – August 2025

AI Engineer Intern

- Developed an AI-powered process workflow analysis platform as part of an internship, integrating process mining, real-time analytics, and RAG-enhanced insights.
- Implemented a dual AI architecture with seamless switching between cloud-based GPT-4 and a locally compressed Gemma-3B model optimized for on-premise deployment.
- Built interactive dashboards with React/TypeScript and Node.js, enabling organizations to identify bottlenecks, optimize workflows, and reduce operational costs through AI-driven insights.

Amcor Flexibles

Feb 2024 – May 2024

Data Automation Intern

- Developed and implemented Excel-based automation tools to streamline HR processes, including a tracking system that generated alerts for expiring employee safety certifications
- Automated payroll-related tasks, enhancing data accuracy and operational efficiency Utilised VBA to automate financial operations
- Collaborated with HR and IT teams to design and refine solutions that reduced manual workload and improved compliance monitoring

Singapore Police Force

April 2022 – Feb 2024

National Service

- Special Operations Command – K9 Unit

Projects

Maritime Hackathon [GitHub](#)

Jan 2025

Machine Learning

- Part of a team of four to develop and train a machine learning model with over 90% accuracy to classify ship repair severity levels based on textual annotations, using a dataset of 10,000+ ship entries
- Designed a Python algorithm to consolidate severity annotations from three different Subject Matter Experts

Hackomania (Interledger: Quitting Addiction Together) [GitHub](#)

Feb 2025

Full Stack Development

- Part of a team of five to create a support network donation platform where users contribute micro-donations via Open Payments API to help others quit addiction
- Developed full-stack web application using Next.js (TypeScript), and MySQL

DSTA Brainhack [GitHub](#)

June 2025

Full Stack Development

- *Finalist (top 20 out of 80+ teams) @ DSTA Brainhack-Code EXP 2025*

- A React Native app that uses AI and community insights to detect online scams, analyze suspicious URLs, and educate users through interactive modules, analytics, and a scam discussion forum.

LifeHack [GitHub](#)

June 2025

- *Finalist (top 10 out of 60+ teams), Best Usage of Data, and Best team for Theme 1 (health and wellbeing) @ NUS Lifehack 2025*
- A React Native app that integrates real-time Singapore health data, GPT-powered health guidance, and community reporting to build an AI-driven, multilingual public health ecosystem.

SentinelAI (Attempted submission for NUS Soc VIP) [GitHub](#)

Aug 2025 - Sep 2025

Machine Learning, Full Stack Development

- Co-developed SentinelAI, a prototype using CCTV/IP cameras with AI to detect falls, strokes, and industrial accidents in real time.
- Although the project didn't advance due to scalability, differentiation, and reliability challenges, it provided valuable lessons in technical feasibility, privacy, and sustainable AI deployment

SUTD What The Hack [GitHub](#)

Sep 2025

Fullstack Development

- Part of a team of 5 to build an AI-powered companion platform for seniors featuring real-time avatar conversations, hobby discovery, and a secure social space

Clubs & Societies

NUS Computing Technopreneurship Society (StartIT)

Aug 2024 – May 2025

Project Manager

- Plan and execute BitHacks, the flagship startathon by StartIT
- Plan and host fireside chats with Tech startup co-founders

NUS Social Impact Catalyst

Aug 2024 – May 2025

General Member

- Communicated with guest mentors and startup groups within the society to brainstorm ideas, craft pitches.

Technical Skills

- **Programming Languages:** C, C++, Python, Java, JavaScript
- **Frameworks & Libraries:** TensorFlow, Scikit-learn, NumPy, Flask
- **Embedded & Digital Systems:** Arduino, Raspberry Pi, FPGA (Vivado)
- **Data Analysis & Visualization:** Excel, exploratory data analysis
- **Tools & Platforms:** Git, AutoCAD Fusion, Replit, Cursor, Figma
- **Concepts:** Object-Oriented Programming (OOP), Data Structures & Algorithms, Networking Protocols, Circuit & Sensor Integration