

SUMMARY OF QUALIFICATIONS

- Programming and Software Development: Proficient in Python, C, C++, Java, HTML, Vivado and VHDL, with experience in developing and optimizing embedded systems and software applications.
- Hardware Proficiency and Integration: Skilled in utilizing Raspberry Pi, Arduino, ESP32, STM32, DE1SoC and TinyCircuit for IoT, robotics, and hardware-software integration, including experience with EDA tools (Multisim, KiCad, Vivado, Quartus) for circuit design and FPGA development.
- Operating Systems and Platforms: Adept at Linux system administration and development, leveraging its environment for programming, deployment, and robotics integration (ROS).
- Cloud and Databases: Hands-on experience with Alibaba Cloud for IoT applications and MongoDB for data management and optimization in software projects.

EDUCATION

University of Washington, Seattle, WA

Expected June 2026

Master of Science, Electrical and Computer Engineering (ECE)

- GPA: *N/A*
- Relevant coursework : The Self Driving Car: Introduction to AI for Mobile Robots, Digital Systems Design with FPGAs, System Engineering

Southern University of Science and Technology, Shenzhen, China

September 2020 – June 2024

Bachelor of Engineering, Automation

- GPA: **3.51**; Ruoshui Scholarship(2%, 2023) , Graduated with distinction(2024)
- Relevant coursework : AI and Machine Learning, Microprocessors and Microsystems, Digital System Design, Microprocessors and Microsystems

RELEVANT EXPERIENCE

Caterpillar-inspired Robot with Battery and PCB board, NC State University, Raleigh, NC

January – February 2024

- Took the lead on developing the control system for a caterpillar-inspired robot, designing circuits that enabled it to switch between crawling modes using joule heating and friction control
- Designed and executed control circuits on PCB board with NMOS switches for exact thermal-driven motion, integrating Wi-Fi and Bluetooth for dynamic robot control

Intelligent Fridge System, National University of Singapore, Singapore

June 2023

- Developed an AIoT-driven Smart Refrigerator system that monitors food freshness, tracks expiration dates, and provides AI-powered recipe suggestions to reduce food waste.
- Integrated YOLOv8 for real-time food classification and freshness predictions, supported by Raspberry Pi, ESP32, Micro: bit and sensor modules for accurate data collection and environmental monitoring.
- Built a cloud-based web interface on Huawei Cloud with GAUSS DB to enable real-time inventory updates, dynamic recipe recommendations, and user-friendly alerts.

Smart Fully Automatic Flowerpot Based on Micropump, SUSTech, Shenzhen, China

September 2023 – May 2024

- Developed an intelligent, fully automatic planter using Raspberry Pi as the core controller, integrating sensors and AI algorithms to monitor plant growth, analyze data, and control micropumps for precise water and nutrient supply.
- Implemented real-time image analysis and environmental monitoring to detect nutrient deficiencies or diseases, offering care recommendations through AI-driven insights.
- Connected the system to Alibaba Cloud's IoT platform for real-time data visualization and remote monitoring via website, enabling efficient and transparent plant management.
- Secured a patent from the China National Intellectual Property Administration (CN220441530U)

ADDITIONAL EXPERIENCE

Founder, Shenzhen Suishi Technology Co, Ltd., Shenzhen, China

April 2023 – June 2024

- Launched a campus offer platform with Meituan, Taobao, and Jingdong, expanding to 3 universities and 10,000+ users
- Achieving 68K+ views in one single post, and used Tableau to analyze data and optimize engagement strategies.

President, Campus News Agency, Shenzhen, China

September 2021 – September 2022

- Coordinated 100+ members to manage the official social media accounts of the university and its magazine
- Won the "Most Impactful University News Work" from China Youth Daily

Volunteer, Campus Volunteer Association, Shenzhen, China

September 2020 – June 2024

- Contributed 200+ hours across 50+ diverse events, enriching children's science literacy
- Awarded the "Top 10 Volunteer" from Southern University of Science and Technology in 2022