

EDUCATION

Nanyang Technological University, Singapore
Bachelor of Engineering (Computer Engineering)

Jul 2017 – Jul 2021

- Dean's List for Academic Year 2018-2019 & 2020-2021
- CGPA 4.76/5.00
- Honours (Highest Distinction)
- Elective Focus in Artificial Intelligence and Data Science & Analytics

EXPERIENCE

Thales (Digital Identity & Security), Singapore
Embedded Software Engineer

Sep 2021 – Current

- Analyse vulnerabilities in proprietary OS and implement secure low-level API calls in C language to mitigate these problems.
- Devise OS testing plan for 2 products working on ARM-based embedded secure elements with more than 100 test cases.
- Monitor code coverage of low-level OS module for use in Common Criteria certification process.

Nanyang Technological University, Singapore
Part-time Research Assistant

May 2021 – Jul 2021

- Built embedded Linux images for Xilinx ZCU102 FPGA based on Yocto Project and Petalinux to evaluate visual SLAM algorithms.
- Ported visual SLAM algorithms to aarch64 system with Cmake and cross-compilation toolchains for the target system.
- Integrate the algorithms to pre-build Linux images and evaluate the system performance during runtime.

Thermo Fisher Scientific Pte Ltd
Firmware Engineer Intern

Jan 2020 – Aug 2020

- Designed the 1st Python-based command-line interface debugger for the firmware team's application protocol that consists of 7 messages and builds on top of CAN protocol.
- Prototyped a RTOS thread for controlling 4 electro-magnets in clockwise/anti-clockwise direction to provide a uniform electromagnetic field for a research scientist's usage in his research on cell biology.
- Set up Amazon FreeRTOS on NXP iMXRT1020EVK MCUs and tested its integration to AWS IoT services for potential replacement of company's obsolete fleet management system.
- Designed a low-level library for playing tunes on piezo buzzers to provide notification sounds to users in company's upcoming products.

Konbini Vending Automation Pte Ltd
Hardware Integration Engineer Intern

May 2019 – Aug 2019

- Collected food's images and labelled them to train object detection models which are then integrated to the company's new products.
- Composed user manuals, technical documentation for 3 of the company key products for operational handover to customers and customers' technician training.
- Devised testing plans and conducted black box testing on the company's unmanned fridges, unmanned lockers and unmanned food canteen for quality assurance before deployments.

SKILLS

Languages: Proficient in English and Vietnamese.
Programming Language: C, Python, Rust.

Metaprogramming tools: Git, Cmake, Linux, Bash.