

Name: Zheng Xinyi | Email: zhengxinyi@live.com

EDUCATION

Singapore Institute of Technology and University of Glasgow

- *Mechanical Engineering (Mechatronics Specialization)*

September 2021 - August 2024

Nanyang Polytechnic

- *Aerospace Systems and Management*

April 2018 - March 2021

SKILLS

Coding - C, C++, Python, SQL, Structured Text, Bash, LabVIEW, ROS

Communication Protocols - BLE, HTTP, LoRa, MQTT, Zigbee, TCP/IP

Data Handling - JSON, CSV, Excel

DevOps - Jenkins, Jira, Git, Kubernetes, Ansible

Virtualization - VMWare, Oracle VM

Hardware & Embedded Systems - Raspberry Pi, Arduino, PLCs, RTOS (FreeRTOS)

CAD Software - SolidWorks, SpaceClaim

Project Management - Agile, Scrum, Lean Six Sigma Yellow Belt

RELEVANT UNIVERSITY PROJECTS

Deploying Neural Networks on PLCs for Industrial Predictive Maintenance - Capstone Project

- Utilized Keras, Scikit-learn, and TensorFlow libraries to train model for equipment failure detection
- Implemented data preprocessing techniques such as feature engineering and normalization
- Deployed deep neural network in programmable logic controllers for industrial predictive maintenance
- Developed user-friendly dashboards to visualize equipment health and failure probabilities

WORK EXPERIENCE

Schneider Electric - *Systems Test Intern*

August 2023 - April 2024

- Programmed, converted, and automated repetitive unit tests resulting in **96%** reduction in time
- Utilized GitHub and Jenkins to automate and integrate unit tests to improve testing efficiency
- Utilized Jira with Agile Scrum methodologies to manage project tasks, log bugs, create test executions, and import test cases from excel, boosting team productivity by **30%**
- Assisted, collaborated, and communicated consistently with the R&D team for effective bug solving
- Authored and maintained set-up guides for automation tools

Trilogy Technologies - *Software Engineer Intern*

September 2020 - February 2021

- Worked independently on 2 projects to meet costs, schedule, and requirements
- Provided prompt solutions and proactive troubleshooting to solve subtle and complex issues
- Designed, programmed, and developed a multi-protocol gateway for Internet of Things applications with an Android application, improving speed of data transfer by up to **50%**
- Led chassis development using CNC and laser cutting, achieving **40%** cost savings
- Created and maintained comprehensive project documentation for clients

LEADERSHIP

Module Leader for NYP School of Engineering - Peer Tutoring

April 2019 - October 2019

- Managed and led 15 members to develop effective learning strategies to improve tutee's weaknesses, increasing test results of **100%** of tutees.

Peer Tutor for NYP School of Engineering - Peer Tutoring

April 2019 - October 2019

- Developed and conducted personalized tutoring sessions, raising test scores by up to **30%**

Exco Member and Section Leader - Concert Band CCA

2015 - 2019

- Led, coached, and motivated a team of 6 to meet performance and competition requirements

ADDITIONAL INFORMATION

Personal Interests: Badminton, table tennis, ballet (grades 1-8), reading