



KOAY XIAN CONG

ELECTRICAL & ELECTRONICS
ENGINEER

PROFILE

Former Junior AI Engineer and currently pursuing Bachelor of Electrical and Electronics Engineering at the University of Nottingham. I'm passionate and experienced in both hardware and software development. I'm willing to share knowledges I learnt throughout my journey with people who are interested and inquisitive. I am passionate in developing solutions using technological knowledges I acquired throughout my journey to solve various problem faced.

CONTACT

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EXPERIENCE

INTERN AT INTEL CORPORATION

JUNE 2022 – SEPT 2022

- ❖ Awarded notable effort or achievement recognition from manager for proposing and developing a MVP that can be adopted by the department for remote OS installation which reduces cost of hiring lab crews and time consumption up to 5 hours.
- ❖ Developed Shell Script to automate installation of Yocto Operating System that increase efficiency of lab crew up to 80%.
- ❖ Proposed and developed several solutions that increase the productivity and efficiency of remote debugging.
- ❖ Developed asset management system to keep track of available assets to boost the productivity of lab crew up to 50%.
- ❖ Experienced in server setup for both hardware and software for system under test (SUT).

CHAMPION IN UNILEVER INTERNATIONAL HACKATHON, ORGANIZED BY UNILEVER, CHINA

JUNE 2022 - AUG 2022

- ❖ Won Champion among 1000+ participants.
- ❖ Developed deep learning model for Acne Classification with accuracy of 90% and deployed as web application.

TUTOR AT BE EDUCATION

JULY 2022 – PRESENT

- ❖ Taught up to 40 hours. (Subjects include Mathematics, Further Mathematics, Physics, Chemistry, Programming, Electrical and Electronics)

JUNIOR AI ENGINEER AT SKYMIND

APR 2021 – SEPT 2021

- ❖ Developed AI Model to detect plant disease, classify plant condition and monitoring plant health up to 85% accuracy.
- ❖ Experienced in data preparation, annotation, and computer vision AI (classification, object detection, image segmentation)
- ❖ Experienced in data pre-processing and data annotation for machine learning.
- ❖ Deployed AI Model in Raspberry Pi.
- ❖ Data processing and visualization using Thingsboard.
- ❖ Developed firmware for nRF chip with Zephyr RTOS.
- ❖ Drew schematics and layout for PCB to be deployed in production with KiCAD.
- ❖ Experienced in utilizing hardware tools to monitor signals.
- ❖ Experienced in Scrum Project Management.

EDUCATION

HARDWARE SKILLS

- nRF Chips
- Jetson Nano
- Raspberry Pi
- Arduino

SOFTWARE SKILLS

- Zephyr RTOS (Firmware)
- Anaconda
- MySQL
- Thingsboard
- Jupyter Notebook
- JetBrains Tools
- VSCode
- Visual Studio
- Emacs
- gcc & g++
- Solidworks
- AutoCAD
- KiCAD
- Vim
- Weight & Bias (ML development)
- Adobe Creative Tools
- LTSpice
- PLECS
- Git and Github

PROGRAMMING LANGUAGES

- C
- C++
- C#
- Python
- Java
- Matlab
- Shell

BACHELOR OF ENGINEERING IN ELECTRICAL AND ELECTRONICS ENGINEERING

UNIVERSITY OF NOTTINGHAM

2021 - PRESENT

- ❖ Awarded Dean's Excellence Award for making into Dean's List at the Faculty of Engineering in University of Nottingham Malaysia.
- ❖ Nominated from the University of Nottingham Malaysia to take part in 2022/23 Inter-Campus Exchange Programme to the University of Nottingham UK.
- ❖ First Year Average: 90.25 (First Class Honours)
- ❖ Member of IEM (The Institution of Engineers, Malaysia), IET (Institution of Engineering and Technology) and Robotics Society in University of Nottingham Malaysia
- ❖ Took Additional Module for Nottingham Advantage Award (Introduction to Security and Investment)
- ❖ Developed Tic Tac Toe game using C language with Reactionary Planning Algorithm.

APPLIED DEEP LEARNING ENGINEER

FORWARD SCHOOL, PENANG MALAYSIA

11/2020 – 1/2021

- ❖ Innovated Acne Classifier using deep learning architecture that analyzes user's acne status that achieve accuracy of 75%.
- ❖ Awarded Most Outstanding Award.

AUSTRALIAN MATRICULATION

SUNWAY COLLEGE, KUALA LUMPUR MALAYSIA

01/2020 – 11/2020

- ❖ Obtained Full Sunway Special Scholarship for Australian Matriculation Programme.
- ❖ Obtained ATAR 92.95 (Top 7 Percentile in the world) and received High Achiever Awards.

CHUNG LING HIGH SCHOOL

PENANG MALAYSIA

01/2015 – 12/2019

- ❖ Malaysian Certificate of Education (9As).
- ❖ Awarded Outstanding Achiever in Co-curricular Activities by the Minister of Education.
- ❖ President of i-CreatorZ (Innovation Incubator club).

OPERATING SYSTEM

- Linux
- Windows

LANGUAGES

- Mandarin
- English
- Malay

SCIENCE AND RESEARCH EXPERIENCES

ARTIFICIAL INTELLIGENCE, MACHINE LEARNING & DEEP LEARNING

2021 - PRESENT

- ❖ Innovated Acne Classifier of accuracy 75% using VGG-16 architecture and obtained Most Outstanding Awards.
- ❖ Developed Plant Disease Detection that achieve accuracy up to 80% using YOLOv5 Object Detection Model.
- ❖ Developed Plant Classification Model of accuracy up to 70%.
- ❖ Developed Lettuce Segmentation Model using Detectron2 Model of accuracy up to 70%.
- ❖ Experienced in developing custom neural network.
- ❖ Experienced in tuning Model using various dev tools (wandb, Roboflow, etc)

2ND BELT AND ROAD TEENAGER MAKER CAMP 2018, ORGRANIZED BY CHINA ASSOCIATION OF SCIENCE & TECHNOLOGY

BEIJING, CHINA

11/2018

- ❖ Awarded Best Maker for directing and producing short film within 2 weeks of the maker camp.
- ❖ Director of the project and led a group of 7 students from different countries.

KANGAROO MATH COMPETITION 2020, ORGANIZED BY KANGAROO MATH MALAYSIA

9/2020

- ❖ Won Gold Medal.

MALAYSIAN NATIONAL CHEMISTRY QUIZ 2019, ORGANIZED BY INSTITUT KIMIA MALAYSIA

7/2019

- ❖ Won High Distinction in Chemistry related quiz.

SIRIM INVENTION, INNOVATION & TECHNOLOGY EXPO 2018, ORGANIZED BY SIRIM

04/2018

- ❖ Won Gold Medal.
- ❖ Project Hardware Engineer tasked in researching, purchasing, developing and test running the sensors and the embedded system.
- ❖ Innovated “Swalk Stick” using embedded system (Arduino) with various sensors; Innovated user’s fall detection using gyro sensors, buzz to notify and transmit a message through GSM automatically with a precise

location using GPS to user's personal assistant; Innovated object detection with ultrasonic wave detection and vibrate the walking stick handle; Light up in the dark automatically.

- ❖ Involved IoT to connect sensors with internet to log user's info.

NATIONAL SCIENCE CHALLENGE 2018, ORGANIZED BY ACADEMY OF SCIENCES MALAYSIA

07/2018

- ❖ Won Prime Minister's Challenge Trophy 2nd Runner Up.

COMMUNICATION & INTERPERSONAL SKILLS

INTERNATIONAL SCIENCE AND TECHNOLOGY SYMPOSIUM FOR YOUTH PRESENTER

CHEONAN, SOUTH KOREA

06/2017; 07/2018

- ❖ Presenter of own innovation regarding Smart Blind to international teachers and students from China, Korea, Japan, Singapore and China in Penang, Malaysia (2017) and Cheonan-Si, South Korea (2018).

PRESENTER OF STEM DURING THE VISIT OF THE ROYAL PRINCESS FROM THAILAND, MAHA CHAKRI SIRINDHORN

07/2018

PRESENTER AND INTRODUCING I-CREATORZ DURING THE VISIT OF THE AMBASSADOR OF HUNGARY TO MALAYSIA, PETRA PONEVACS-PANA

08/2018

LEADERSHIP, ORGANISATION AND TEAMWORK

PRESIDENT OF I-CREATORZ, CHUNG LING HIGH SCHOOL

06/2018 – 07/2019

- ❖ Obtained sponsorships from various tech companies to support students in science and technology industry.
- ❖ Organizing chairperson of 1st CreatorZ Day 2018.
- ❖ Recruited talented individuals and ran activities.
- ❖ Led and planned for several projects such as Digital Clock, marathon ranking system, Star Wars Hologram project which are all funded by CLHS Alumni.
- ❖ Led members to visit Pentamaster & Mini-Circuits.
- ❖ Collaborate with Penang Science Cluster in organizing activities to members.