KOAY XIAN CONG

ELECTRICAL & ELECTRONICS ENGINEER

PROFILE

Former Junior AI Engineer at Skymind 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 have personally taught more than 20 academic students voluntarily and coached more than 30 high school students on conducting an international workshop.

CONTACT

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EXPERIENCE

IOTG DEBUGGING INTERN AT INTEL CORPORATION

JUNE 2022 – SEPT 2022

- ❖ Developed Shell Script to automate installation of Yocto Operating System.
- ❖ Developed asset management system to keep track of available assets.
- ❖ Experienced in debugging System Under Test (SUT) board.
- ❖ Experienced in installation of hardware of a server, booting BIOS, OS installation, and server setup.
- ❖ Proposed and developed several solutions that increase the productivity and efficiency of remote debugging.
- ❖ 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 and time consumption.

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.
- ❖ 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.
- ❖ Applied 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 selection of hardware components to be used in production.
- ❖ Experienced in utilizing hardware tools to monitor signals.
- ❖ Experienced in Scrum Project Management.

HARDWARE SKILLS
- nRF Chips
- Jetson Nano
- Raspberry Pi
- Arduino

SOFTWARE SKILLS
- Zephyr RTOS (Firmware)
- Anaconda
- MySQL
- Thingsboard
- Jupyter Notebook
- Jetbrain Tools
- VSCode
- Emacs
- gcc & g++
- Solidworks
- AutoCAD
- KiCAD
- Vim
- Weight & Bias (ML development)
- Adobe Creative Tools
- LTSpice
- PLECS

PROGRAMMING LANGUAGES
- C
- C++
- Python
- Java
- Matlab
- Shell

EDUCATION

BACHELOR OF ENGINEERING IN ELECTRICAL AND ELECTRONICS ENGINEERING
UNIVERSITY OF NOTTINGHAM
2021 - PRESENT

- ❖ First Year Average: 90.25
- ❖ Member of IEM (The Institution of Engineers, Malaysia)
- ❖ Member of IET (Institution of Engineering and Technology)
- ❖ Member of 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.
- ❖ Awarded Most Outstanding Award.

AUSTRALIAN MATRICULATION
SUNWAY COLLEGE, KUALA LUMPUR MALAYSIA
01/2020 – 11/2020

- ❖ Obtained Full Sunway Special Scholarship for Australian Matriculation Programme.
- ❖ Subject taken: Chemistry, Physics, Math Methods, Math Specialists, English as Additional Language or Dialect.
- ❖ Obtained ATAR 92.95 (Top 7 Percentile in the world).
- ❖ Obtained 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.

OPERATING SYSTEM

- Linux
- Windows

LANGUAGES

- Mandarin
- English
- Malay

SCIENCE AND RESEARCH EXPERIENCES

ARTIFICIAL INTELLIGENCE, MACHINE LEARNING & DEEP LEARNING

2021 - PRESENT

- ❖ Innovated Acne Classifier using VGG-16 architecture and obtained Most Outstanding Awards.
- ❖ Developed Plant Disease Detection using YOLOv5 Object Detection Model.
- ❖ Developed Plant Classification Model.
- ❖ Developed Lettuce Segmentation Model using Detectron2 Model.
- ❖ Experienced in developing custom neural network.
- ❖ Experienced in tuning Model using various dev tools

UNILEVER INTERNATIONAL HACKATHON, ORGANIZED BY UNILEVER, CHINA

8/2022

- ❖ Won Champion among 1000+ participants.
- ❖ Developed Web Application for Acne Classification.

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

BEIJING, CHINA

11/2018

- ❖ Awarded Best Maker.
- ❖ 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.

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 DURING THE VISIT OF THE ROYAL PRINCESS FROM THAILAND, MAHA CHAKRI SIRINDHORN & THE AMBASSADOR OF HUNGARY TO MALAYSIA, PETRA PONEVACS-PANA

07/2018; 08/2018

LEADERSHIP, ORGANISATION AND TEAMWORK

PRESIDENT OF I-CREATORZ, CHUNG LING HIGH SCHOOL

06/2018 – 07/2019

- ❖ 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.