PANG KANG WEI
ROBOTICS & MECHATRONICS ENGINEER

CONTACT

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SKILLS

Mechanical
- **SolidWorks** used to create 3D models, simulate CNC machining, and draft 2D engineering drawings with FAI dimensions
- **3D printing** used to rapidly prototype parts

Software
- **Python** used on various projects involving AI
- **JavaScript , HTML, CSS** used to build web application and websites
- **Matlab** used to program basic computer vision algorithms
- **G-code** used to program CNC machines
- **Swift** used to develop iOS application for the final year project
- C++, VHDL, PLC ladder, WPF, RAPPID, KRL

Electrical
- LTspice, soldering, wiring

EDUCATION

Monash University

Bachelor of Robotics and Mechatronics Engineering (Honours)
March 2019 - Dec 2022

- CGPA: 3.256
- WAM: 71.897

AWARDS

IEEE FYP Competition 2022
- Track 15 (View)
- Track 17 (View)

CERTIFICATES

- Dassault Systèmes Certified SolidWorks Associate in Mechanical Design (View)
- Innovate Malaysia Design Competition (View)

WORK EXPERIENCE

Mechatronics Engineer

JKS Engineering (M) Sdn Bhd   Nov 2021 - Feb 2022

- Built a conveyor communicator software using Windows Presentation Foundation for parameters setting
- Designed the user interface for the software
- Self-educated C# to program the front-end and back-end
- Programmed one of the conveyor operation modes as known as zero pressure accumulation
- Performed functionality tests on the software built
- Led the LaTeX development for the production of technical and scientific documentation
- Programmed document templates for both English and Chinese version in TeX using LaTeX
- Provided a lecture session for a team of 4 on the LaTeX templates to guide them for future usage

PROJECTS

Final Year Project

What?
- Integration of technologies to the hydroponics farming system
- Developed a self-monitoring system

How?
- Utilized IoT for remote monitoring
- Programmed a self-monitoring algorithm in python
- Used Raspberry Pi to integrate sensors and actuators
- Developed an iOS application to monitor the environmental conditions

Results
- The system successfully planted Chinese cabbage in 30 days with minimal human intervention

Apple Leaf Disease Classification

What?
- Detect apple leaf diseases to reduce quantitative and qualitative losses in crop yield

How?
- Applied ResNet-18 convolutional neural network

Results
- Achieved a test accuracy of 96.4%