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:
- WAM: 71.897

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%