Wong Weng Wah

williamwww8@gmail.com · www.mechamoon.xyz
Kajang, Selangor

WORK EXPERIENCE

Genting SkyWorlds Technical Department, Genting Malaysia Berhad — Genting Highlands, Pahang
Theme Park Service Engineer Executive Intern — June 2024 - Sept 2024

- Performed corrective and preventive maintenance on mechanical and electrical systems of six rides during and after park hours with a team of technical staff.
- Maintained daily, weekly, bi-weekly, and monthly checklists in compliance with safety guidelines and industry standards, including TUV and Disney.
- Maintained service reports on all corrective maintenance activities to facilitate troubleshooting and trend analysis.
- Prepared comprehensive reports on bolt/screw torque values and compiled spare parts lists by referring to the ride's engineering drawings and manuals.
- Collaborated with technical executives to effectively manage a team of 30 technical staff.

EDUCATION

University of Nottingham Malaysia, School of Electrical and Electronics Engineering — Semenyih, Selangor
MEng (Hons) Mechatronic Engineering — Sept 2021 - June 2025
Autonomous Vehicle, AI, 3D Printing, Aerial Robotics, Advanced Control Systems, CAE — Results: 72% (First-Class)

Methodist Boys' Secondary School Kuala Lumpur — Kuala Lumpur, WPKL
Sijil Pelajaran Malaysia (SPM) — Jan 2015 - Dec 2019
Physics, Chemistry, Additional Mathematics, English as First Language (IGCSE) — Results: 4A+ 1A 3A- 1B

ACADEMIC PROJECTS

- Developed and simulated an Artificial Neural Network-based novel Maximum Power Point Tracking method for a string of solar panels using Simscape in MATLAB Simulink as part of my Final Year Project, which boasted better efficiency compared to traditional PSO and P&O methods.
- Developed and designed a semi-autonomous freshwater monitoring aquatic vehicle, measuring water temperature and water depth, as part of a group project.
- Developed a 3-DOF vehicle longitudinal simulation model in MATLAB/Simulink and validated using IPG CarMaker, and implemented a PD ABS control system.
- Reverse-engineered an Arabian Teapot using SolidWorks to generate a precise 3D CAD model, along with stunning renders of the Arabian Teapot using SolidWorks Visualise.
- Conducted FEA analysis, design studies and topology studies on wind chimes and bicycle crank arms using SolidWorks.
- Simulated an octocopter using Simulink, along with trajectory planning, and implemented simple LQR control.
- Trained a deep convolutional neural network to classify good and bad germinated palm oil seeds using computer vision techniques.
- 3D printed a shape-sorting toy using FDM technology; conducted research on current trends and advancements in additive manufacturing.
- Designed and implemented RS232 receiver and transmitter systems in VHDL using Xilinx FPGA technology.
- Performed FEA on synchronous motors using FEMM to evaluate performance and efficiency.
- Developed and designed a centrifugal clutch as part of a group project.
- Developed and designed a robotic scoop for a small-scale automation system as part of a group project.

TECHNICAL SKILLS

- MATLAB/SIMULINK
- CAD using Solidworks
- IPG CarMaker
- C / C++ / Python Programming
- Microcontroller programming (Arduino & Raspberry Pi)
- FDM 3D Printing
- Computer Vision & AI
- FPGA Xilinx
- Embedded Systems using PIC16F887
- Using Ubuntu

LANGUAGES

- English (Business Fluent)
- Bahasa Malaysia (Good / Conversational)
- Mandarin (Basic Knowledge)
- Cantonese (Mother Tongue)

CERTIFICATIONS

World Robot Olympiad New Delhi 2016
High Distinction International Level

UNITEN Green Millennial Exhibition 2019
1st Runner Up National Level

UNM IEEE Maze Solving Competition 2024
Champion

UNM Arduino Soccer League 2024
Best Design