# Wong Weng Wah

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## 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 a 3-DOF vehicle longitudinal simulation model in MATLAB/Simulink and validated using IPG CarMaker, and implemented a PD ABS control system.
- Simulated an octocopter using Simulink, along with trajectory planning, and implemented simple LQR control.
- 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.
- Developed and designed a semi-autonomous freshwater monitoring aquatic vehicle as part of a group project.
- Trained a deep convolutional neural network to classify good and bad germinated palm oil seeds using computer vision techniques.
- 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.
- Performed FEA analysis 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
- FPGA Xilinx
- Embedded Systems using PIC16F887
- Computer Vision & AI
- 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