Pyae Phyo Wai

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A results-driven Electronic Engineering graduate specializing in renewable energy systems, power conversion, and battery storage. Highly proficient in using MATLAB, Simulink, Revit and AutoCAD to model and analyse complex electrical systems. Combines a strong analytical foundation with hands-on experience in both technical support and BIM modelling. Eager to contribute my skills in modelling, embedded systems, power electronics, and simulation to a challenging graduate engineering role.

Education

University of Portsmouth **Sept 2024 – June 2025**

BEng (Hons) Electronic Engineering (Overall Grade: First-Class)

- Authored a technical paper and dissertation on a solar-powered EV charging station with battery backup, performing feasibility studies and detailed design of the power conversion and storage systems using MATLAB/Simulink.
- Built and validated a machine learning model to predict wind turbine power output, enhancing forecasting accuracy for onshore wind energy systems.
- Designed and programmed a FreeRTOS-based Smart Conveyor Control System on an ESP32, demonstrating strong skills in embedded systems and real-time control.
- Applied digital signal processing techniques by designing and validating FIR and IIR filters in MATLAB to reduce noise from sensor data, confirming a higher signal-to-noise ratio through frequency domain analysis.
- Modelled and analysed advanced electronic systems in Proteus and LTSpice, applying theory on Chebyshev and Butterworth filters and system reliability to evaluate transient and frequency response characteristics.

Chindwin Technological College, Myanmar **June 2021 – June 2023**

HND in Electrical & Electronic Engineering (Overall Grade: Merit)

- Designed a Smart Fish Tank System using embedded sensors and microcontrollers to automate water quality and temperature control, reducing manual checks by 80%.
- Developed an Energy Management System on Arduino Uno for monitoring and optimising power usage in small-scale applications.
- Upgraded a traditional lighting system to a POE-based Smart Lighting Setup, increasing energy efficiency by 20% through intelligent control and automation.
- Built multiple analogue and digital electronics projects including a Sensitive Intruder Alarm and Supermarket Entrance Counter using LM358 op-amps and digital logic ICs, demonstrating sensor integration and signal processing through firmware written in C for microcontrollers.
- Conducted an Industrial Study on Instant Coffee Production Systems, evaluating automation processes and identifying key factors influencing production efficiency.

Relevant Work Experience

TrustLink Co., Ltd., Mandalay, Myanmar **Jan 2024 – June 2024**

Junior Service Engineer

- Provided on-site and remote technical support for over 50 complex electrical systems (ATMs & X-ray gates), demonstrating strong diagnostic skills suitable for a Field Service environment.
- Diagnosed critical technical issues using diagnostic tools and component-level analysis, implementing effective solutions that reduced service call frequency by 15%.
- Installed and configured new ATM units, including hardware calibration and network integration, which improved deployment efficiency by 10%.
- Maintained detailed service logs in a digital tracking system, creating comprehensive reports that improved root cause analysis for recurring faults.
- Collaborated with senior engineers to develop and implement preventative maintenance schedules, enhancing long-term equipment reliability.

Aung Tagon Construction Co., Ltd., Myanmar **June 2023 – Dec 2023**
BIM Modeler

- Developed and managed coordinated 3D BIM models for MEP services using Autodesk Revit and AutoCAD, ensuring high levels of model accuracy.
- Liaised with multi-disciplinary teams, including MEP engineers and architects, to coordinate design elements and perform clash detection to resolve conflicts.
- Conducted quality assurance checks on models and drawings to ensure compliance with project specifications and industry standards.
- Generated accurate material take-offs and quantity schedules from the BIM model to support project cost estimation and procurement.
- Created compelling 3D visualizations and renderings using Enscape to effectively communicate design intent to clients and stakeholders.

OTHER WORK EXPERIENCE

Spectrum Cleaning, UK **Nov 2024 – Present**
Cleaner

- Demonstrated reliability and high attention to detail while maintaining dining areas and restrooms to impeccable hygiene standards.
- Consistently adhered to strict health and safety protocols while handling cleaning supplies daily.

Kingston Leisure **April 2025 – May 2025**
Arcade Assistant

- Provided excellent customer service in a busy environment, effectively troubleshooting technical issues with arcade machines to minimise downtime.
- Managed cash handling, ticket redemption, and inventory processes, demonstrating trustworthiness and organisational skills.

CPG Logistics, Gosport **Nov 2024 – Dec 2024**
Picker/Packer

- Worked with high accuracy in a fast-paced logistics environment to meet daily order fulfilment targets.
- Collaborated effectively with team members to meet strict deadlines, supporting warehouse organisation and maintaining quality standards for all orders.

Key Strengths

- Engineering Fields: Renewable Energy Systems, Power Systems, Transmission & Distribution, Instrumentation & Control (I&C), Building Information Modelling (BIM), MEP Services.
- Technical Skills: Solar PV System Design, Battery Energy Storage Systems (BESS), Grid Integration, Power Electronics, Embedded Systems, Firmware Development, PCB Design & Assembly, PLC/DCS/SCADA Principles.
- Software & Tools: MATLAB, Simulink, AutoCAD, Revit, Proteus, LTSpice, Enscape, VS Code, Arduino. Programming Languages: C, C++, Python, MATLAB.

Certifications & Training

- MathWorks Onramp (2024) – Power Systems Simulation, Simulink, MATLAB, Power Electronics Simulation, Circuit Simulation, Simscape Onramp.
- Autodesk Training (2023) – Revit Architecture, Revit MEP & Structure Modelling, AutoCAD Complete & Detail, Advanced Revit MEP, Revit Family Creation.
- ESE Engineering Training Center (2023) – Basic Solar PV System Design, Advanced Electrical systems
- Sololearn (2025) – Machine Learning, Python Developer, Introduction to C++.

Additional Information

- Languages: Fluent in English.

References available on request