





MALVIN A. MANALANG

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 Bella Vita subd., Brgy. San Andres,
Alaminos Laguna



Jobstreet Profile

EDUCATION

Bachelor of Science in Industrial Technology Major in Electronics Technology

Cavite State University –
Carmona Campus

2018 – 2022

TECHNICAL SKILLS

- Reverse Engineering
 - Circuit board Hardware Troubleshooting
 - PCB layout design
 - Schematic diagram layouting
 - Schematic diagram analysis
 - PCB board debugging
- Embedded Programming
 - Basic C++
 - Intermediate Python
- Application Development
 - Basic knowledge in Windows app and Web Applications development
- UI/UX Design
 - Basic skill in designing web app and windows application using figma and canva

LANGUAGE

- English
- Filipino

CAREER OBJECTIVE

Aspiring to leverage my expertise in hardware development, embedded programming, and system analysis to drive innovative solutions. Eager to apply my skills in debugging, PCB design, and schematic analysis to contribute to the success and technological advancement of a forward-thinking company.

WORK EXPERIENCE

Pythos Technology Philippines Inc.

2022 – Present

RnD Engineer I

Acquired Experiences

- **Air Tower Development:** Collaborated with a team to design a system for air particle detection and air quality analysis.
 - Conducted electrical wiring and hardware debugging to ensure system reliability.
 - Prepared daily technical reports and analyses, documenting findings and progress.
 - Delivered weekly progress reports to supervisor, tracking milestones and project updates.
- **QSense Development:** Collaborated with a team to design a device for monitoring electrical parameters, including voltage, current, and harmonics.
 - Conducted hardware debugging across multiple sections of the mainboard to ensure functionality.
 - Developed firmware to enable accurate data acquisition and device operation.
 - Performed device parameter calibration, ensuring measurement accuracy and reliability.
 - Created a user guide manual for seamless installation and application of the device.
- **QShield Development:** Collaborated with a team to design an advanced system for power factor correction, harmonic analysis, and grid load imbalance management.
 - Performed hardware debugging and optimized schematic diagrams and PCB layouts based on troubleshooting results.
 - Conducted experiments for firmware development, ensuring system precision and stability.
 - Analyzed input signals to improve real-time performance and accuracy.
 - Developed multi-core CPU firmware for DSP and communication protocol firmware for SBCs.
 - Designed and implemented a desktop HMI/GUI for seamless equipment interface and control.
- **Water Filtration System for the Office of Civil Defense (OCD):** Collaborated with a team to develop a portable water filtration system to meet OCD's operational requirements.
 - Designed schematic diagrams and PCB layouts for system functionality and reliability.
 - Led decision-making on parts and components, optimizing cost-effectiveness and performance.
 - Developed a desktop HMI/GUI for equipment interface and control, enhancing usability and monitoring efficiency.

Provided first-level technical support, diagnosing and troubleshooting hardware, firmware, and system-level issues across diverse projects, including QShield, QSense, and Air Tower. Conducted routine system maintenance, calibration, and firmware updates to ensure optimal device performance and reliability. Monitored system performance and proactively identified and resolved potential issues before they impacted functionality. Collaborated with cross-functional teams to align designs and solutions with project goals and industry standards. Stayed informed on emerging technologies, integrating improvements into system designs and recommending process enhancements for future development.

REFERENCES

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