

Carl Joseph J. Manantan

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EDUCATION

Polytechnic University of the Philippines Diploma in Computer Engineering Technology	Sta Mesa, Manila City 2024 - PRESENT
Parang High School Science Technology Engineering and Mathematics <i>With High Honors</i>	Parang, Marikina City 2022 - 2024

CERTIFICATION

TESDA

- Computer Systems Servicing NC II
Certificate No: 25131102022189 | ULI-MCJ-05-447-13087-001 May 15, 2025 - July 02, 2025
- Collaborative Robot Programming Level III April 16, 2026 - May 15, 2026
- Database Programming with SQL - English
Oracle Academy May 15, 2026 - June 19, 2026

ORGANIZATION

- Google Developer Groups – PUP-Manila**
Member
- Society of Engineering Technology Students**
Deputy Secretary

TECHNICAL SKILLS

- Programming:** Python, Java, C++, PHP
- Web Development:** HTML, CSS, JavaScript
- Database & Cloud:** MySQL, Oracle Database, Firebase (Firestore, Auth)
- Hardware & Networking:** PC Troubleshooting, Networking, Intermediate Electronics
- Design & Tools:** AutoCAD, 2D Animation (Adobe Animate)
- IDE/Tools:** NetBeans, Eclipse, VS Code, Laragon
- Version Control:** Git, GitHub

RESEARCH EXPERIENCE

Project Luntian: A Micro-Forest Guardian For Mango Seedling Protection And Monitoring

- Developed an autonomous, off-grid embedded system (ESP32-based) to reduce seedling mortality in mango reforestation by automating irrigation and localized pest/intrusion deterrence.
- Integrated a capacitive soil moisture sensor and relay-controlled water pump for threshold-based watering; used a PIR motion sensor with a buzzer and LED to scare animals.
- Implemented scheduled UV-light electric bug zapper to mitigate nocturnal flying pests near seedlings.

WORK EXPERIENCE

- Freelance Web Designer (WordPress)** July 31, 2025 - August 25, 2025

REFERENCES

JEROME DE GUZMAN
OJT Adviser
Polytechnic University of the Philippines
Reference available upon request.

JOHN MICHAEL LEGASPI
Oracle Academy Instructor | DBMS Professor
Polytechnic University of the Philippines
Reference available upon request.