

VALERIAN SHEAN TENEDY

computer engineering

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PROFESSIONAL SUMMARY

Third-year Computer Engineering student with proven experience in end-to-end IoT project development , from custom PCB design to embedded C++ programming. Passionate about creating full-stack IoT solutions by integrating sensors/actuators and connecting them to cloud platforms. Leverages modern tools, including AI for debugging, to deliver well-rounded and high quality results.

EDUCATION

BINUS UNIVERSITY	Computer Engineering 3rd year
September 2023 - Present	GPA: 3.42/4.0
SMA SINAR DHARMA	MIPA
2020 - 2023	

VOLUNTEERING & LEADERSHIP

IEEE Student Branch

January 2024 - January 2025

member

- Collaborated with a team to design Survbot, a surveillance robot with camera feed and omnidirectional movement.
- Prototyped electronic circuits to test designs and code functionality.
- Designed and fabricated PCB for the surveillance robot project.

CERTIFICATIONS

Introduction to IoT

Simplilearn

November 2025

Machine Learning using Python

Simplilearn

November 2025

SKILLS

Hard Skills: CAD DESIGN, FUSION 360 (AUTODESK), PCB Design, KICAD, EASYEDA, EMBEDDED SYSTEM, ARDUINO , ESP IDF, BAREMETAL AVR , C++, PYTHON, MATLAB, FLUTTER, VHDL, ESP32, RASPBERRY PI, ELECTRONICS, MQTT, HTTP, BLE, LoRa, Machine learning

Soft Skills: Problem-Solving, Teamwork & Collaboration, Problem-Solving, Critical Thinking, Creativity & Innovation, Communication Skills, adaptability

PROJECTS

Survbot

Jun 2024 - Jun 2025

- Designed a surveillancerobot with omnidirectional movement and real-time video feed.
- Engineered custom PCB and electronics using the esp32 platform as the main microcontroller.
- Developed firmware for on the ESP32 platform, integrating real time video feed, motor controls, and wireless communication.

CrashAlert

Feb 2025 - Jun 2025

- Developed a crash detection device designed to identify car crashes and automatically locate and contact emergency services.
- Implemented real-time accident detection algorithms based on accelerometer and gyroscope data.
- Programmed GSM module to automatically send SMS alerts with live location to emergency contacts.

RoboDrive-32

July 2025 - September 2025

- Designed a custom 4 layer PCB based on ESP32 platform for robotics projects.
- Integrated step down converter, motor driver and microcontroller into one board.
- Handled end-to-end hardware development from component selection to physical assembly and verification.

Draupnir

July 2025 - September 2025

- Designed a custom PCB around the ESP32 platform integrating power management, SD card, GPS module, and user I/O interfaces.
- Developed firmware to control peripherals, manage data logging, and enable wireless communication.
- Assembled the board by selecting components, soldering parts, and validating hardware functionality.

LANGUAGES

English (Fluent), Indonesian (Native), German (Intermediate), Chinese (Basic)