

# VALERIAN SHEAN TENEDY

robotics engineer

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## PROFESSIONAL SUMMARY

Third year Computer Engineering student with a focus and passion for robotics, IoT, and embedded systems. Motivated to gain new experiences in related fields to drive innovation and technical advancement. Committed to strong collaboration and adaptability by successfully contributing to team initiatives and delivering impactful results on projects.

## EDUCATION

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

## 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)