

CONTACT

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EDUCATION

2023 - NOW (3nd year student) BINUS UNIVERSITY - COMPUTER ENGINEERING GPA: 3.42/4

2020 - 2023

SMA SINAR DHARMA - NATURAL MATH & SCIENCE

TECHNICAL SKILLS

CAD DESIGN

- ONSHAPE
- FUSION 360 (AUTODESK)
- BLENDER (FOR RENDERS)

HARDWARE

- KICAD
- EASYEDA
- ALTIUM

EMBEDDED SYSTEM

- ARDUINO FRAMEWORK
- ESP IDF
- BAREMETAL AVR

PROGRAMMING LANGGUAGES

- C
- C++
- PYTHON
- MATLAB
- DART
- VHDL

VALERIANTENEDY

COMPUTER ENGINEERING STUDENT

PROFILE

Computer Engineering student with strong skills in robotics, PCB design, and embedded systems. Experienced in IoT development, firmware programming, and collaborative engineering projects. Passionate about creating innovative hardware solutions.

WORK EXPERIENCE

BRIGHTCHAMPS - ROBOTIC INSTRUCTOR (June 2024 - June 2025)

- instructed students on following the robotic course
- demonstrated to students about simple robotics concept
- delivered robotics materials through zoom classes

ORGANIZATION & PROJECT EXPERIENCE

DRAUPNIR (2025)

- Designed and built a portable ESP32-based IoT device with integrated screen and navigation switch.
- Adapted the hardware to run a modified version of Marauder firmware for enhanced functionality.
- Added SD card storage support and GPS module connections for data logging and location features.
- Optimized the device's compact enclosure design, making it suitable for portable use.

CAR CRASH DETECTION SYSTEM (2025)

- Developed a crash detection device using Arduino Nano, MPU6050 IMU, GPS NEO-6M, and SIM800L GSM module.
- Implemented real-time accident detection algorithms based on accelerometer and gyroscope data.
- Integrated GPS to capture location coordinates during an accident event.
- Programmed GSM module to automatically send SMS alerts with live location to emergency contacts.
- Designed the hardware system with buzzer and LED for user feedback and status indication.
- Conducted testing and calibration to ensure reliable detection and minimal false positives.

IEEE STUDENT BRANCH, BINUS (2024 - 2025)

- Collaborated in a 2-person team to design and develop a surveillance robot named Survbot.
- Designed and prototyped robot kinematics with mecanum wheels for omnidirectional movement.
- Created prototype PCBs and developed the embedded firmware for robot control.
- Designed the mechanical chassis and integrated electronics hardware.
- Implemented a camera feed system for real-time video transmission.
- Led the final assembly, testing, and project delivery.

BATTLEBOT COMPETITION (2024)

- Designed and built a combat robot for a battlebot competition at binus.
- Led the electronics design, including PCB development and integration of ESP32-based control system.
- Implemented motor driver circuits and wireless communication for realtime remote operation.
- Contributed to the mechanical design of the chassis and weapon system.