

Charles Shaju

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Robotics & IoT Enthusiast | 2 Years Experience | MCA (Pursuing)

Embedded Systems Engineer with 2 years of experience currently pursuing MCA to advance expertise in computing and intelligent systems. Interested in IoT, robotics, and embedded AI.

WORK EXPERIENCE

i4 Marine Technologies Pvt Ltd • Pune, Maharashtra Embedded Systems Engineer • Full-time	Aug 2023 - Jun 2025
<ul style="list-style-type: none">Experience in Embedded Systems Development (C/C++, ESP32, Raspberry pi)Worked on Underwater ROVs and Autonomous surface vessels (ASVs)Hands-on with Sensor Integration, Motor Control, LoRa, GPS, and real-time data systems	

EDUCATION

MCA in Computer Application Rajagiri College of Social Science • Kalamassery, Kochi	Jun 2025 - Present
Calicut University in Bachelor of Vocational Studies(IT) Christ College Autonomous Irinjalakuda • Thrissur • GPA: 85%	Aug 2020 - Apr 2023
HSS(Plus Two) in Commerce Computer Application St. George HSS Pariyaram • Thrissur • GPA: 97%	Jul 2018 - Apr 2020

CERTIFICATIONS

Geo-Data Processing Using Python and ML IIIRS,ISRO	Mar 2025 - Present
Certificate in AI-Machine Learning Developer ASAP Kerala	Jun 2024 - Present

SKILLS

- Embedded Systems:** ADC/DAC, Arduino, C / C++, Microcontroller Programming ESP32, PWM, STM32
- Communication Protocols:** I2C, LoRa, RS485/Modbus, SPI, UART, Wi-Fi
- Sensors & Actuators:** Barometric Sensors, Depth, GPS, IMU, Motor Control, pH, Pressure, Turbidity, Temperature
- Systems & Platforms:** BlueROV, Autonomous Surface Vessels, Raspberry Pi, MAVLink, MAVProxy, Pixhawk, QGroundControl, Underwater ROVs
- Software Tools:** Arduino IDE, Git, KiCad, Linux / Raspbian OS, Python, VS Code