

# VAISHAKH V

## EMBEDDED SYSTEM ENGINEER

Electronics and Embedded systems engineer with a strong foundation in electrical engineering. Passionate about hardware-software integration, IoT, PCB design, and space technology, with a commitment to continuous learning and innovation.

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### CONTACT

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### SOFTWARE

KiCad  
Linux  
Keil ARM Cortex  
Vivado  
MATLAB  
LTspice  
Wireless Networking  
Auto Desk Fusion

### SKILLS

Research & Problem-Solving  
Project Coordination

### PROGRAMMING LANGUAGES

Embedded C Programing  
Python (Machine Learning)  
VHDL  
Assembly

### LANGUAGES

English  
Malayalam  
Hindi

### EXPERIENCE

**PCB designer - sign eminent enterprises Pvt ltd** 2023 -2024  
Freelanced as a PCB designer for Sign Eminent Enterprises Pvt Ltd, developing Battery Management System (BMS) PCBs for power management applications using KiCad. Responsibilities included schematic design, circuit optimization, layout implementation, and design validation.

**Team lead for nanosat dev project – Gagan aerospace** 2020 - 2023  
Led a multidisciplinary team in developing a nano-satellite, managing component selection, circuit design, and subsystem simulation. Oversaw project timelines, facilitated cross-functional collaboration, and ensured efficient team coordination to meet key milestones. Conducted rigorous testing and validation to enhance system performance and reliability. Contributed to the project during my college years as part of Gagan Aerospace, a startup incubated under NSSCE.

### EDUCATION

**MTech in embedded systems**  
Vellore Institute of Technology (VIT) CGPA: 8.17

**BTech in electrical and electronics engineering**  
NSS College of Engineering Palakkad Kerala CGPA: 7.91

**Higher secondary school in computer science**  
MNKM HSS Chittilamcherry Kerala 87.75%

### ACTIVITIES

**Solar storm prediction using CubeSat data:** developed an ml model to detect and predict solar storms using CubeSat telemetry.

**Machine learning & AI projects:** built binary image classifier, hand recognition and tracking system for IoT home automation, line follower.

**Space club lead, Celestia NSSCE:** organized workshops and collaborated with ISRO veterans to enhance industry engagement and technical learning.

**IOT & Microcontroller projects:** Designed and implemented multiple IoT and embedded system-based DIY projects.

**Design of BMS for Electric vehicles (ongoing):** Online Udemy course covering BMS architecture, SoC estimation, and STM32-based hardware design.