

# Gandla Bhargavi

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## Professional Summary

Senior Software Engineer with 4 years of experience in battery management systems (BMS) and telematics in the automotive domain.

Expertise in embedded software development, STM32 microcontrollers, and system integration.

Contributed 2.5 years on BMS, enhancing firmware reliability, real-time monitoring, and system performance.

With 1.6 years in telematics, improved diagnostics, conducted feasibility analyses, implemented GTest for validation, and mentored junior engineers, improving team efficiency by 20%.

Actively seeking opportunities for professional growth and to contribute to innovative projects that drive organizational success.

## Key Skills

Programming: Embedded C, C, C++, Python (Beginner)

Tools: Keil, Eclipse, Visual Studio Code, Code::Blocks, GitLab, JIRA, GitHub, Sublime Text

Protocols: CAN, SPI, I2C

Others: CAN Protocol Message Verification (BUS Master), Virtual Machine (Linux), Draw.io

## AI Tools & Technologies

GitHub Copilot: Applied in Visual Studio Code to accelerate code development, improve code quality, and adopt optimal coding practices during C++ and embedded systems development.

ChatGPT: Utilized for prompt-based query resolution to clarify coding concepts, debug issues, and improve understanding of complex technical problems.

## Professional Experience

### Senior Software Engineer | Tata Elxsi | May 2023 – October 2024

- Developed telematics solutions to enhance vehicle diagnostics and user safety.
- Conducted feasibility analysis for AWS IoT FleetWise and geofence module, ensuring seamless system integration.
- Implemented GTest for validation, reducing testing time by 15% and improving test coverage.
- Designed and documented component diagrams using Draw.io, improving team communication and system clarity.
- Mentored junior developers, leading to a 20% improvement in team efficiency and software quality.

### Firmware Engineer | Green Cubes Technology | Oct 2018 – Mar 2021

- Developed and optimized firmware for Battery Management Systems (BMS) using STM32 microcontrollers, improving reliability by 30%.
- Implemented bootloader and memory mapping, ensuring efficient system updates.
- Conducted CAN protocol testing and created safety latch test cases, reducing error rates by 25%.
- Enhanced real-time monitoring and cell balancing, leading to a 20% increase in battery lifespan.
- Streamlined test case documentation, cutting development time by 15%.
- Debugged and resolved critical firmware issues using JIRA, improving software stability.
- Contributed to performance tuning, achieving a 25% boost in system efficiency.

## Education

MTech in Automotive Electronics | VIT University | GPA: 8.12

Final Year Project: Facial recognition using CNN

Bachelor of Engineering in Electrical and Electronics Engineering | S.C.S.V.M.V Deemed University | GPA: 8.56

Final Year Project: Z-source inverter

## Certifications & Courses

- Embedded Systems and Automotive Domain – Skillfinity
- C Programming Course – log2base2
- Python Programming Course – log2base2
- C Beginners Programming – Great Learning Academy
- Jupyter Notebook – Great Learning Academy
- Embedded Systems with Mbed – Udemy
- Getting Started with GitHub Copilot – Great Learning Academy
- ChatGPT for Coders – Great Learning Academy
- Data Structures in C – Great Learning Academy

## References

Sunil G: Staff Engineer, Qualcomm | itsrajsunil@gmail.com | +91-9705946573  
Raghuraman Devanur: Senior Engineer, EFALKE - IIIT | raghuramdc@gmail.com