

Muskan Singh

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Professional Summary

Enthusiastic Embedded Software Engineer with 1.7 years of experience in management applications for IVI systems. Skilled in unit testing, bug fixing, and code quality enhancement, with hands-on experience in EB Tresos, S32 Design Studio, and debugging tools like Ozone. Passionate about embedded systems, continuous learning, and data-driven decision-making, ensuring reliable and efficient software solutions.

Skills & Competencies

- **Programming & Query Languages:** C, Python
- **Application Development:** Power Management
- **Driver Development:** GPIO, GPT, SPI, I2C & UART
- **Software Development & Debugging:** Unit Testing (gTest), Sanity Testing,, Debugging with Ozone
- **Communication Protocols:** CAN, SPI, I2C, UART
- **Tools & IDEs:** S32 Design Studio, EB Tresos, Ozone, Confluence, Jira, Gerrit , VS code, CANOE
- **Other skills:** Excel , Power BI, Teamwork, Communication

Professional Experience

Engineer – Forvia Faurecia Clarion Electronics

July-2023 to Present

- Worked on modules such as Power Manager and Cyber Security, contributing to their development and testing.
- Performed unit testing (GTest) by writing 90+ test cases in C, achieving 100% code coverage for critical Power Manager functions and Cyber Security, ensuring 99.9% module reliability and functionality.
- Resolved 100+ Coverity errors, improving code readability and maintainability while ensuring 100% adherence to coding standards.
- Used tools like Ozone for debugging and conducted thorough bug testing to identify and resolve issues.
- Performed sanity testing to validate system stability and functionality.
- Authored and maintained comprehensive Confluence pages for documentation purposes.
- Worked on AUTOSAR architecture and developed HAL layer drivers for GPIO, UART, and SPI.
- Used EB Tresos for configuring MCAL settings and S32 Design Studio for building and debugging projects.
- Gained experience working on the NXP S32K312 board, ensuring successful implementation and testing

Education

Bachelor of Engineering (E&TC) | CGPA: 8.63 | 2019 - 2023

Certifications

- 30-Days Power BI Micro Course - Skill Course (FEB 2025)
- Introduction to Japanese Language & Culture – NPTEL (DEC 2020)

Achievements & Leadership

- Learning Champion Award at Faurecia - Recognized for commitment to continuous learning.
- President, Rotaract Club (2021-2022) - Led a team to win the Best Rotaract Club of the Year.
- Internships at Viacom 18, Grapevine, and Woovly, managing teams of 10+ students.