

PRADEEP BARAL

Embedded Software Engineer



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WORK EXPERIENCE

Embedded Software Engineer

IELEKTRON Technologies Engineering Pvt Ltd.

09/2022 - 03/2024

Client: FORVIA | Project: K9 (CAN & Diagnostics) |Environment: Infotainment

RESPONSIBILITIES:

- Develop detailed test cases using coverage techniques like statement and branch coverage.
- Create a conducive environment for unit testing embedded software.
- Perform Coverity analysis to identify and resolve warnings, enhancing code quality and software reliability.
- Utilize VS Code, Jira, and Confluence for coding, project tracking documentation.
- Collaborate with development teams to integrate testing processes and Coverity analysis into the software development life cycle.
- Maintain concise documentation of test cases, techniques, and Coverity analysis results for future reference.
- Participate actively in testing activities to improve software quality and overall quality assurance processes.

Embedded Training

Vector India Pvt. Ltd Hyderabad.

03/2022 - 09/2022

Client: Vector | Project: Touch Screen Based Device Control System |

Environment: Development

RESPONSIBILITIES:

- I contributed to designing a touch screen-based device control system, selecting hardware and coding with Keil, C, and C++. This demonstrates proficiency in hardware and software aspects.
- Implemented control logic to integrate the touch screen inter- face with device functionality seamlessly.
- Developed device algorithms for precise touch input handling, ensuring responsive control system behavior.
- Implemented robust error-handling mechanisms to provide users with meaningful feedback during system malfunctions or input errors.
- Executed comprehensive testing mechanisms to ensure system reliability and user feedback accuracy.

PROFILE SUMMARY

I am a dedicated Embedded Software Developer with over 2 years of extensive experience specializing in C/C++ programming for embedded systems. My expertise extends to mastering communication protocols such as UART, SPI, I2C, and CAN, and I possess a high level of proficiency in low-level programming and debugging techniques. With a demonstrated track record of successful collaboration on multifaceted projects, I have honed my skills in teamwork and adaptability. Now, I am eager to leverage my expertise and embark on new challenges in the dynamic field of embedded software development, where I can contribute my knowledge and skills to drive innovation and achieve impactful outcomes.

EDUCATION

Electronics and Communication Engineering,

S.S.C.E.T affiliated to G.U., Chandrapur

06/2017 - 06/2020

Diploma in Electronics and Telecommuni- cation,

Sai Polytechnic, Chandrapur

06/2014

TECHNICAL SKILLS

- **Programing language:** C / C++, Embedded C
- **Hardware:** Microcontroller (8051)
- **Protocols:** UART, I2C, CAN, SPI
- **Tools:** VS code, JIRA, Confluence, Keil Vision
- **Version Control System (VCS):** Git, Gerrit
- **Operating System:** Linux (Ubuntu), Windows

