

DEVASHISH RANJAN

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Embedded Software Developer | C/C++ | AUTOSAR | RTOS

SUMMARY

Performance-driven Embedded Software Developer with an M.Tech from BITS Pilani and 4+ years of experience in safety-critical automotive systems. Specialized in developing Longitudinal Dynamics Control (LODMC) algorithms using PI controllers. Expert in C/C++ within AUTOSAR and OSEK-based RTOS environments.

EXPERIENCE

CONTINENTAL AUTONOMOUS MOBILITY

Mar 2023 – Present

Software Developer

- Lead the development of the **Longitudinal Dynamics Controller (LODMC)** for ADAS (ACC, RSPA).
- Implement **PI controller algorithms** for precise brake torque modulation and vehicle stabilization.
- Develop embedded software within the **AUTOSAR** layered architecture, ensuring ASIL-D compliance.
- Manage task scheduling and resource synchronization using **OSEK-based RTOS**.
- Perform deep-dive log analysis and debugging using Eclipse, GIT, and HiL/SiL tools.

SECURE METERS LTD

Jul 2022 – Feb 2023

Embedded Software Developer - Executive

- Developed real-time energy monitoring applications using **C++ and Qt Creator**.
- Optimized UI workflows using **OOP (C++11/14)** principles, increasing usability by 20%.
- Managed software lifecycle via Agile sprints and GIT version control.

SKILLS

Languages: C, Embedded C, C++ (11/14), DSA, Python.

Frameworks: AUTOSAR, OSEK OS (RTOS), Model-Based Development (MBD), MATLAB/Simulink.

Protocols & Tools: UART, I2C, SPI, Eclipse, GIT, Keil, Proteus, VS Code.

EDUCATION

M.Tech in Automotive Electronics | BITS Pilani

2025 (Completed)

B.Tech in Instrumentation & Control Engineering | Haldia Institute of Tech.

2019 (CGPA: 7.5)

PROJECTS

Reverse Collision Mitigation: Enhanced RCCA functionality using standstill management in C.

GCC Pre-Processor: Developed a custom pre-processor in C for macro replacement and parsing.

Obstacle Avoiding Robot: Arduino-based autonomous system using ultrasonic sensors.

AWARDS & ACTIVITIES

Prize in IEEE RoboWar; ELIT certificate in 8085 (NPTEL). Languages: English, Hindi.