

# Tanmay Gajbhiye

## EMBEDDED SOFTWARE ENGINEER

Embedded Software Engineer with 2.5 years of experience in automotive development, specializing in software testing, debugging, and requirement documentation. Proven expertise in embedded C and C++ for complex problem-solving, with hands-on experience in the Radar Gen5 project at Bosch. Skilled in platform-embedded software development, including testing, debugging, and developing innovative solutions. Strong knowledge of RTOS, communication protocols such as CAN and I2C, and microcontroller programming (STM32F, ARM, MSP430F). Adept at delivering high-quality solutions in a fast-paced, collaborative environment.

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## WORK EXPERIENCE

### Embedded Software Engineer

#### Bosch Global Software Technologies Pvt Ltd

05/2023 - Present

Pune, India

##### Achievements/Tasks

- Optimization of embedded C code to enhance performance and meet customer requirements.
- Responsible for the acquisition and maintenance of the monitoring system for the Analog-to-Digital Converter (ADC) integrated into the microcontroller, to ensure optimal performance and reliability.
- Conducted (ASPICE level SWE1, SWE2, SWE3, SWE4, SWE5) testing and debugging of Embedded C code provided by the client using Lauterbach Trace32, PDV Tool.
- Contributed to the enhancement of the AUTOSAR memory stack by improving Non-Volatile Memory (NVM), optimizing the Diagnostic Event Manager (DEM), and refining diagnostic capabilities to elevate overall performance and reliability.
- Conducted quality assurance checks (QAC) to enhance the overall quality of the code.

### Associate Software Engineer

#### Bosch Global Software Technologies Pvt Ltd

09/2022 - 05/2023

Pune, India

##### Achievements/Tasks

- Conduct unit tests using the Cantata tool and develop test scripts for unit testing.
- Responsible for maintaining software requirements documentation, including writing new requirements and reviewing all components using IBM DOORS.
- Executed ASPICE-level SWE4 testing and debugging activities for embedded C code.
- Managed and maintained hardware samples and test benches for the team's use.
- Implemented targeted software-level optimizations to improve overall code performance.

## EDUCATION

### B.E. in Electrical Engineering

#### Yeshwantrao Chavan College of Engineering

07/2018 - 05/2022

CGPA: 7.4

### H.S.C

#### Kamla Nehru Mahavidyalaya

03/2017 - 04/2018

76.8

## SKILLS

Embedded C, C++

Microcontroller Programming (STM32F, ARM, MSP430F)

Software Integration testing and Unit testing

Diagnostic DEM, NVM

Real-time operating system (RTOS)

Communication protocols: SPI, I2C, CAN, Modbus

Code analysis

Embedded system debugging

Tools: IAR Embedded Workbench, Lauterbach Trace32, ICE, Emulators, Simulators, Logic Analyzers

MATLAB

Infineon AURIX TC3xx

GPIO, Timer, ADC

FLASH

Git, Bitbucket, JIRA

Exceptional debugging and troubleshooting skill

Bootloader

Embedded system development

## PERSONAL PROJECTS

### Smart Face Mask Detection System (04/2021 - 05/2021)

- Created an innovative system utilizing C language and RTOS, proficiently detecting individuals who are not wearing face masks.

### Hand Gesture Control Wheelchair with Fall Detection System (11/2021 - 01/2022)

- Developed a system using an Arduino Uno, RF transmitter, and RF receiver to detect hand movements and adjust the wheelchair accordingly. Included fall detection with notifications.

## LANGUAGES

Hindi

Native or Bilingual Proficiency

English

Full Professional Proficiency

Marathi

Native or Bilingual Proficiency

## INTERESTS

Photography, Music, Cycling