

# K SIVANI

## EMBEDDED SOFTWARE ENGINEER

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 Bengaluru, Karnataka

### PROFILE

To contribute my technical expertise in a dynamic and challenging environment, utilizing my skills in embedded systems development and software engineering to contribute to the success of the organization while expanding my knowledge in the automotive domain.

### SKILLS & TOOLS

- Embedded C, Basic C++
- Da Vinci Configurator & Developer
- Diagnostic protocols: UDS
- Communication protocols: SPI, Basics of CAN, UART, I2C
- ISO 14229
- Vector CANoe, Logic analyzer
- Basic CAPL scripting
- Version control: GIT, Source tree
- Requirement engineering: IBM DOORS

### PROFESSIONAL EXPERIENCE

#### EMBEDDED SOFTWARE ENGINEER

Bosch Global Software Technologies (BGSW)

January 2021 – Present

- Analyzed and reviewed software requirements using IBM DOORS.
- Prepared the design for the software implementation using Rhapsody and UML diagrams in alignment to the requirements and specifications.
- Developed and implemented embedded software solutions for automotive applications.
- Worked on UDS protocol - ISO 14229 2013-1 for services- 0x10, 0x11, 0x27, 0x2E, 0x22, 0x31.
- Experienced in DCM module.
- Port creation and access using Da Vinci Configurator & Developer.
- Handled manual coding implementation using Embedded C for DIDs/RIDs.
- Worked on IMC communication based on SPI and OSI model.
- Conducted bench testing using CANoe, basic CAPL scripting and unit testing using VectorCast and Google Test to verify functionality and quality of implementation.
- Performed static code analysis (MISRA) to ensure code quality and adherence to standards using Bauhaus.
- Participated in peer code reviews to ensure the robustness of the software.
- Created and maintained software test plans and CDD (Component Description Document).
- Debugged software using Ozone, J-link Segger debugger, iSystem debugger, JTAG, RS-232 DB9 connectors and CANoe, logic analyzer to ensure the release is stable.
- Contributed to knowledge sharing and continuous improvement within the team.
- Delivered software patches to resolve bugs and issues found in previous releases.
- Developed and tested software based on the V model.

- Design tools: Rhapsody
- AEEE, Visual Studio
- AUTOSAR
- MISRA, ISO 26262
- Ozone, J-link segger, iSystem debugger
- Static code analysis: MISRA (using Bauhaus)
- Jenkins
- V-model for software development

## PROJECT TRAINEE

Bharat Electronics Limited (BEL)

Jan 2020 - Aug 2020

- Developed a User interface to configure the receiver system placed in a missile and receiving a feedback from the hardware system which shows performance of the receiver system.

## INTERN

DRDO, Ministry of Defence, Govt. of India

July 2019 - Aug 2019

- Surveyed the labs to learn about the measurement methods, equipment, and testing procedures.
- Designed a filter for high bands of frequency using microstrip lines. This was done using ADS software which is an electronic design automation software system.

# EDUCATION

## BACHELOR OF TECHNOLOGY

Electronics and Communication Engineering (ECE),  
Bangalore Institute of Technology (BIT),  
Visvesvaraya Institute of Technology(VTU)

2016 - 2020

CGPA - 8.92

## SENIOR SECONDARY SCHOOL

Kendriya Vidyalaya (KV), DRDO

2014 - 2016

Percentage - 93%

# CERTIFICATIONS

## EMBEDDED SYSTEMS DESIGN

NPTEL, IIT Bombay

# DECLARATION

I hereby declare that the information furnished above is true and correct to the best of my knowledge and belief.