

# PANIL KUMAR

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## Summary:

- Having 5 + years of Experience in the Design and Development of Embedded Software in the Automotive Domain.
- Hands-on experience in programming like C, and Embedded C.
- Analysing the Customer Requirement, Design, Coding, Testing, and Integration of the changes into the embedded software.
- Hands-on experience in AUTOSAR Architecture.
- Experience with GIT software Configuration management.
- Having good Experience in microcontrollers.
- Having knowledge of CAN, CAN-TP, UDS.

## Professional Experience:

Worked as Technical Leader in KPIT, Bangalore June 2022 to till now and worked as a Senior Software Engineer at GLOBAL EDGE Software Pvt Ltd (part of Capgemini Technologies Pvt Ltd) from March 2020 to May 2022, and worked as a Software Developer at Softline Solutions Pvt Ltd from Jan 2019 to Feb 2020.

## Academic Profile:

B.Tech in Electronics and Communication Engineering from VBVP in 2018

## Technical Skills:

Programming Languages : C, Python, CAPL, Embedded C.

Microcontroller : Mpc5648, Flex Config Device

Tools : DaVinci Developer/DaVinci configurator), AEEE PRO, RAFT, Flex config RBS, Diagnostic Engineering Tool, Trace 32, CANoe, C4K tool.

Version Management : JIRA, GIT, SVN.

Protocols : CAN, CAN-TP, UDS.

**Project: Minerva Gateway**

Company : KPIT  
Designation : Technical Leader  
Duration : June2022 – Till  
Protocols : CAN, CANFD.

**Description:**

Gateway ECUs are used to control and facilitate inter-bus communication to have seamless communication between different networks in a vehicle.

**Responsibilities:**

- Prototype gateway development project and designed gateways for various ECUs including LIDAR, RVC, PARK, and DCB to evaluate for E2E profiles, SecOC, and routings.
- Good knowledge of gateway and automation scripting using CAPL.
- Extensive experience with CAPL and panel development and design & development of a test framework with interactive panels for feature testing.
- Developed automation scripts to validate GTS frames and SecOC.

**Project 2: Infotainment Software Tester and Defect Management**

Company : GLOBAL EDGE Software Pvt Ltd  
Duration : Jan 2022 to May 2022  
Protocols : CAN, CAN-TP, UDS.

**Description:**

This project is all about System Level testing of Infotainment Software for Cars and The Infotainment System involves Settings, CAN, UDS, Audio/Video systems, Tuner, Connectivity, Projections, Illumination, Rear View Camera, Park Assist, Navigation, Climate Control, Voice Recognition, Analytics, etc.

**Responsibilities:**

- Defect management and defect Triaging.
- System Testing of the Platform Software.
- Analysing the requirements given by the Customer and developing the test cases.
- Execution of developed test cases.
- Complete understanding of the UDS document and Testing
- Creating the issues for failed test cases using ELVIS tool.
- Defect Logging and Verification. Environment Android

**Project 3: PMA**

Duration : April 2020 – Dec 2021  
Protocols : CAN, CAN-TP, UDS.

**Description:**

The project's main purpose is to produce a real-life solution to the car parking problem that the whole world faces frequently, people usually roam around in parking lots trying to find a suitable place to park to solve that problem, this PMA will increase security and environmental safety, it requires the owner authentication to park or un-park the car and must be registered at first time.

**Responsibilities:**

- Identification and understanding of the requirements.
- Preparing test scenarios for the modules and documenting.
- Performed manual testing and integration testing.
- Review test case specifications for the existing functionalities and new features of the product.
- Implementation of the diagnostic stack.

**Project 4:** Blind Spot Detection Using Short-Range Radar

Duration : Feb 2019-March 2020

Environment : Embedded C, MPC5648, CANoe.

Protocols : CAN, CAN-TP, UDS.

**Description:**

Short Range Radar system supports Active safety features BSD (Blind Spot Detection) and RCTA (Rear Cross Traffic Alert). The BSD system will monitor and take much of the strain off the driver and avoid hazardous situations. SRR monitors the road area behind and next to the vehicle and warns if the driver tries to pull out despite there being no gap. The RCTA system helps to avoid accidents when reversing out of a parking space. These can often lead to serious accidents involving personal injuries. BSD is part of ADAS ECU and uses AUTOSAR STACK. Our BSD algorithm sits in AUTOSAR SW-C. 2 Radar units are used for Left and right blind spot detection and the algorithm reads the CAN data coming from radar units and informs the driver on the Secondary display and alerts him with a beep sound.

**Responsibilities:**

- Requirement Analysis of BSD Feature.
- Configure, BSW, and Integrate the SWCs using Davinci Configurator
- Design SWCs using Davinci Developer
- UDS testing using Canoe

**Declaration:**

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particular.

**Place:-** Bangalore

**Date:-**

**Signature**  
P Anil Kumar