

SHUBHAM KATOLE

Nagpur, Maharashtra

☎ +91-9403096928

LinkedIn-www.linkedin.com/in/shubham-katole

✉ katole.shubham2270@gmail.com

Profile Summary

Experienced Automotive/Marine **Embedded System Engineer with 2 years** in **Functional Testing, Diagnostics Testing, Hardware Testing, HIL Testing**, Lab Car, Debugging, **SDLC, STLC**, Linux operating System, **Extraction and Restoration** of Data, Trails Over Rukmini Satellite, **System Requirement**.

Technical Expertise

Programming Language: Embedded C, CAPL Scripting, UDS, Python, Matlab

Technologies & Tools: CANoe, CANape, Ediabas Toolset32, Diagnoser Tool, NI PXI-ATHost, ATdiManager, FIR

Requirement Management Tools: IBM Doors

Flashing Tools and Debuggers: E-sys, Lauterbach(Trace32), DDT, SWDL

Version Control System: SVN, Git and Github

Platform: Renesas, Tenssy 4.0 and 4.1, Arm Cortex M4

Hardware: SATA, PATA, PCI Card, NVMe, Dc-Dc Converter, Logic Analyser, CRO, PC-104, Crash Card Adaptor

Professional Experience

YEOMAN MARINE SERVICES PVT. LTD. MUMBAI | Embedded System Engineer

Feb 2024 - Dec 2024

Remote Embedded System's Support (ReSS)

- **Project Description:** It Deals with LinQ Eco-System is to have Two Complementary range of Devices called Aggregator and Renderers, which Seamlessly work Together to Provide **Data Handling and Presentation Capabilities**. LinQ Setup Provides an Environment for Operating, Testing, Monitoring and Maintenance of Embedded Systems. It Provides **Remote access to Interfaces/Console**, Operation on Constrained Networks, **Removable Secure Data Storage** Cartridge, Versatile Power Operation, **Common Test Equipment**.
- **Hardware: Common Test Equipment(CTE)**, Multi Channel Oscilloscope, Logic Analyser, **Signal Generator**, Programmable Power Supply, Inverter, **I/O card**, Power Distribution Box, UPS, Delta, **Workstation(Multi-Boot environment)**, Tableau, Secure Repository.
- **Responsibility:**
 1. Responsible for Testing, Customer Requirement Analysis & Understanding.
 2. Training Given to **Indian Navy-Officers** and Resolving the Bugs in a System.
 3. Installation and Configuration of the Environment of a System.
 4. **Data Extraction and Restoration** of Secure Repository by using centos and clonezilla.

LEAR CORPORATION PVT. LTD. PUNE | System Test Engineer

Nov 2022 - Nov 2023

Body Domain Controller (BDC) and Front Ended Module (FEM)

- **Project Description:** BDC is Body Domain Controller (ECU) Developed for BMW Car X-series variant and this project consist of Functionality Like **Terminal Control, Central Locking, Electronic Column lock-fusi(ISO-26262)**, Horn, fuel level Indicator, **steering Wheel Heating-Vibration**, shift Wheel Paddle, Power Window, Wiper and Washer, AC, Immobiliser, Interior and Exterior light, **Gateway**, Third Row Seat.
- **Hardware:** PXI System with Analog and Digital inputs, FIR cards, **CAN LIN controller Card** and Programmable Supply.
- **Responsibility:**
 1. Functional Safety Related Testing of **Safety Function** (Brake Light Sensor, Alive Counter, CRC, **Safety Integration Function**, Bonet, Driver, Door Contact, **ECL-Engine and Speed Related Fault**)
 2. Test Execution on **Manual setup as Well as Automated HIL Setup**.

3. Preparation of **Test Report** and Creation of JIRA ticket.
4. **CAPL Scripting** for Functionality and Diagnostics.
5. Hands on Experience of making CFG files, i.e **Canoe Simulation Panel Creation,Node Creation.**

Energy Management Module(EMM2)

- **Project Description:**This Project is about Testing all Functionality along with Diagnostics of Energy Management Module and it covers the Functionality like **Low and High Beam, Rear and Front Fog Lamp, DLR, Wiper and Washer and Side Mirror.**
- **Responsibility:** Functional Testing,**Diagnostic Testing**,Preparation of Test Report.

Project

Development of Fedora Linux Distribution Operating System For RISC-V Architecture Based On VEGA Microprocessor

- 1.Create a Fedora Linux Distribution Operating System **Image for RISC-V Architecture** by using LFS and Booting.
- 2.Testing OS Image with the **QEMU Emulator** and Rebuilding Fedora SRPMs on top of RISC-V Fedora Linux OS image.
- 3.Development of **GCC native compiler** for RISC- V(RV64G) Architecture.
- 4.Porting RPM Package Build System on RISC-V Linux Distribution called **KOJI build system.**

Education

CDAC (Post Graduation Diploma in Embedded System)- 71%
Government College of Engineering, Jalgaon (Instrumentation)- 69%

Mar 2022 - Oct 2022
Aug 2011 - Jul 2015

Additional Information

- **Knowledge About Matlab**-Basic Operation of Matlab, Plots,I/p and o/p Function, Loops, Control Statement, Function Creation,Graphical User Interface, Signal Processing, Image Processing, Filter Design.
- **Knowledge About Git/Github, VScode,Eclipse, STM32**-CubeID, Arduino- Embedded C and Python coding and Debugging
- **Basic Knowledge of Autosar, Unit Testing and ISO26262**- Having knowledge about architecture of autosar,Ports,Interfaces, Also did Unit Testing and ISO26262 used in Testing for the BMW project.