

Matam Santosh

Embedded Software Developer

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PROFESSIONAL SUMMARIES

Software Developer with 2+ years of experience specializing in Autonomous Vehicle development, real-time operating systems, and wireless communication protocols in Embedded Systems. Possess excellent communication skills and have an eye for detail. Flexible to work in any environment as required. Skilled in AUTOSAR, Docker, Kubernetes and Linux.

EXPERIENCE

Software Developer

Sep '22 — Present

Cognizant

Bengaluru, India

- Developed C++ and Python code to manage real-time control features, including LED and steering wheel operations, for autonomous vehicle systems.
- Problem-solving and debugging skills for embedded systems and low-level software.
- Experience with embedded software development and firmware development.
- Led the development of OTA systems, managing version control, rollback mechanisms, and secure updates to vehicle software and firmware.
- Collaborated with cross-functional teams on AUTOSAR integration, MCAN implementations, and testing of embedded modules.
- Created and validated vehicle test scripts using an in-house Python conversion tool and HIL simulations to ensure safety and compliance with ISO 26262 standards.
- Proficiency in AUTOSAR architecture and module interactions.
- Good knowledge of communication protocols including CAN, Flex-Ray, Ethernet and LIN.

EDUCATION

B.Tech in Electronics and Communication Engineering, REVA UNIVERSITY (GPA: 9.32)

Aug '18 — Jul '22

Bengaluru, India

- Bengaluru, India

SKILLS

Programming Languages C++, Python, Embedded C, Software Development

Operating system RTOS, Windows , Ubuntu

Automotive Protocols UART, CAN bus, TCP/IP, MQTT, SPI, LIN, I2C

Tools Visual studio , DSpace, Control desk, JTAG, GCC, Version Control Systems, Git

Hardware Nxp i.MX 8QM, Raspberry Pi, Sensors, EEPROM, IC

PROJECTS

Software Defined Vehicle project for Accelerator, Cognizant

Dec '23 — Present

Bangalore , India

- Developed a C++ code for sending and receiving CAN packets by using Socketcand.
- Implemented OTA (Over-The-Air) workflows for software updates in multi-core systems
- Full automated process workflow for Cloud Native development and virtualization.
- Porting of the stacks on the multiple target hardware platforms like NXP- Toradex(i.MX 8QM)

Fiat Ch-Test Automation EEVI, Cognizant

Oct '22 — Nov '23

Bengaluru , India

- Developing a Test script(Test Cases) from Test plan with the help of Vehicle Functionalities (VF's), CAN/LIN Database, Model Interface sheet.
- Doing ADP generation for the developed Test Scripts in Automation Tool Kit (ATK). i.e. to convert the excel Format test script (.xlsx) to Automation Desk project (.adpx)
- Working on HIL Execution for the developed TS in Automation Desk for fixing the issues with TS.
- To generate HTML Report from Automation Desk project (ADP) in Automation Tool Kit (ATK) after the completion of Execution.
- To generate Test Report in excel format with the help of ATK Tool.

CERTIFICATIONS

[Google Cloud Certified Associate Cloud Engineer](#), Google cloud

Jan '23

[Microsoft Certified Azure Data Fundamentals](#), Microsoft

Feb '23