

Vivek Gupta

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Professional Summary

- Results-driven Embedded Software Engineer with 3+ years in Classic AUTOSAR diagnostics and memory stack integration, contributing to the Stellantis STLA Brain project. Adept in DCM, DEM, FEE, NVM, and UDS service compliance. Skilled in CANoe, Trace32, CAPL scripting, and DaVinci tools. Strong background in integrating CDD files, ARXML interpretation, and optimizing embedded systems per OEM diagnostic standards. Proven record in cross-functional collaboration, process improvement, and test automation.

Education

- IIIT Naya Raipur** Raipur, Chhattisgarh
B.Tech in Electronics and Communication Engineering (ECE) 2017 – 2021

Professional Experience

- KPIT Technologies Ltd.** Bengaluru, Karnataka
Senior Embedded Software Engineer – AUTOSAR Diagnostics Nov 2021 – Present
 - Classic AUTOSAR Diagnostics:** Led DCM and DEM development for multiple ECUs in the Stellantis STLA Brain platform.
 - Memory Stack Configuration:** Implemented NVM and FEE modules per application-platform requirements.
 - Fault Management:** Designed robust DTC and fault logging with DEM integration.
 - Test Automation:** Developed 100+ CAPL scripts to test UDS services, DIDs, RIDs, and OBD via CANoe.
 - Diagnostic Stack Integration:** Integrated CDD files and customized service responses as per diagnostic requirements.
 - ARXML Mapping:** Mapped OEM diagnostic specs to ARXML for traceability and compliance.
 - Mentorship**
Efficiency: Trained 3+ engineers; improved test cycle by 20% with optimized strategy.

Projects

- PID-Controlled Inverted Pendulum:** Built real-time Arduino system with PID control for a balancing inverted pendulum.
- Electronic Nose:** Designed gas sensor array using pattern recognition to detect food spoilage.
- AI-Powered PDF Q&A Tool:** Python app to auto-extract and answer questions from math-intensive PDFs using OCR and AI.

Certifications and Awards

- Vector Certified Embedded Associate (CEA):** Awarded by Vector Informatik for AUTOSAR and diagnostics proficiency.
- Breakthrough Achievement Award – KPIT:** Recognized for impactful diagnostic module delivery (Feb 2023).
- Learning Champion**
Contributor: Consistently acknowledged for mentorship and quality delivery (2023–2024).

Technical Skills

- AUTOSAR:** Classic AUTOSAR (DCM, DEM, NVM, FEE), Service Layer, CDD, ARXML
- Languages:** C, Embedded C; familiar with Python, CAPL
- Tools:** CANoe, Trace32, DaVinci Configurator, Developer, Rhapsody, GIT, Jira
- Protocols:** UDS (ISO 14229), CAN, Diagnostic over IP (DoIP) — if applicable
- Certifications:** Vector CEA (2022), Docker Essentials, Automotive Cybersecurity (2024)

Languages

- Hindi: Native proficiency
- English: Professional working proficiency

Interests

- Building embedded/AI productivity tools