# Manirajan Gopalakrishnan

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## SUMMARY

Experienced Verification & Validation Engineer with a strong background in Automotive and Avionics embedded systems. Proficient in unit, integration, and system (HIL/SIL) testing, ASPICE, and ISO 26262 compliance. Skilled in automating quality workflows using IaC, enabling CI/CD and continuous testing.

## EXPERIENCE

*MBition GmbH (ANÜ/Fixed term from Ferchau Mobility GmbH),* **Verifcation Quality Assurance Engineer**
*Dec 2023 - May 2025*
• Led test planning across teams, ensuring compliance with ASPICE by automating workflows in Atlassian and IBM management tools via REST APIs, using Python.
• Managed cloud-based Hardware-in-Loop test environments, enhancing operational efficiency through custom KPI reporting using Grafana and PostgreSQL.
• Architected GitLab pipelines to streamline requirement-based smoke tests in integration phases.

*Technology and Strategy GmbH,* **Senior Consultant**
*Sep 2022 - Oct 2023*
• Led a team of 10 engineers to conduct defect analysis and bug fixing, ensuring compliance with SW component specifications and testing in compliance with best practices of SWE.4.
• Executed exploratory testing for network communication and diagnostics over CAN/FlexRay networks using rest-bus simulation in Vector CANoe and CAPL scripting.
• Conducted run-time analysis and debugging using Trace32 debugger to ensure the robustness of SW components before integration.

*Bosch Global Software Technologies,* **Senior Engineer**
*Feb 2018 - Aug 2022*
• Authored test strategies, cases, and scripts for functional, non-functional, and regression testing, ensuring ASPICE L3 compliance towards best practices of SYS.5 and SWE.6.
• Executed Hardware-in-Loop testing with ETAS LABCAR on braking control systems influencing vehicle dynamics.
• Improved test automation frameworks in Perl for LABCAR INCA using keyword based test automation, saving up-to 30 hours per person week.

*Tata Consultancy Services,* **System Engineer**
*Aug 2015 - Feb 2018*
• Verified Engine ECU software for aviation engines, ensuring high-level requirement implementation.
• Utilized CUT, PTC Integrity, ARTISAN, and DO-178B Level A guidelines, proficient in ADA for software verification and validation.

## EDUCATION

*Thiagarajar College of Engineering (Anna University)*
*Bachelor of Engineering* • **Electronics and Communication Engineering**

## LICENSES & CERTIFICATIONS

**ISTQB® Certified**
*ISTQB® - International Software Testing Qualifications Board* • *www.istqb.in/advanced/certified-testers/8724-manirajan-gopalakrishnan* • *Issued Jan 2024*

## SKILLS

C • Python • Git • Bash • Software flashing and debugging • Vector tools • CAN, FlexRay, Automotive Ethernet, UDS, XCP • Razorcat Tessy • Robot Framework • Atlassian Suite