

Mohammad Ferozuddin

DevOps & Infrastructure Specialist | QA Automation Engineer | M. Tech EEE/Power Electronics JNTUH

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PROFESSIONAL SUMMARY

Detail-oriented **DevOps and Automation Test Engineer** with over 5 years of experience in designing and maintaining robust automation frameworks for **Industrial Automation (DCS)** and **GNSS/GPS** technologies. Expert in **Python**, **Robot Framework**, and **SQL** for backend validation, with a proven track record of migrating manual regression suites into high-efficiency automated pipelines. Strong domain expertise in **Archestra IDE** and **AVEVA-Wonderware** ecosystems.

TECHNICAL SKILLS

- **Domain Expertise:** Industrial Automation (DCS/PLC), Archestra IDE, AVEVA-Wonderware, GNSS/GPS Receivers (OEM7/PwrPak7), Aerospace & Defence protocols.
- **Automation Frameworks:** Robot Framework, Pytest, Pywinauto, Micro Focus UFT, LeapWork, Tosca (R&D).
- **Programming & Scripting:** Python, XML, SQL, C/C++, Visual Basic (VB), MongoDB(Beginner), Java(Beginner), HTML/CSS.
- **Quality Assurance & Testing:** Software QA, SDLC/STLC, Manual Testing, Test Automation, Functional, Regression, Smoke, Integration, and Unit Testing, Complete Defect Life Cycle, Test Planning, Strategy & Execution, Code Coverage Analysis, Test Reporting.
- **DevOps & CI/CD:** Jenkins, GitLab CI/CD, Docker, Azure DevOps (TFS), Virtual Machines (Hyper-V), System Recovery, Network Device Configuration, Hardware/Software Installation, Lab Management.
- **Protocols:** Modbus, HART, DeviceNet, Profibus, TCP/IP Ethernet.
- **Tools & Platforms:** Azure DevOps (TFS), Microsoft Test Manager (MTM), JIRA, GitLab, AutoIT, Inspect.

PROFESSIONAL EXPERIENCE

HEXAGON R&D INDIA | Hyderabad, India

Senior DevOps Engineer (Automation Infrastructure) | Dec 2023 – Present

- **Architected a Python-based automation infrastructure** to replace legacy "Slog" systems, developing four core package categories: Framework, Data Collection, Post-Processing, and Reporting for NovAtel GNSS receivers (OEM7, PwrPak7).
- **Engineered taskrunner_ctors** to bridge the gap between standalone C/C++ firmware tools and Python environments, enabling seamless automated execution across multiple test suites.
- **Automated manual workflows** using **Jenkins and GitLab CI/CD**, reducing human intervention and accelerating the firmware testing lifecycle for Aerospace and Defence applications.
- **Maintained 95%+ code coverage** by implementing rigorous unit and integration testing via **Pytest**, reducing post-deployment defects by over 90%.
- **Innovation:** Prototyped a custom AI agent using **Prompt Engineering** to perform automated code reviews, providing real-time feedback to developers and ensuring high-quality infrastructure code.

COGNIZANT TECHNOLOGY SOLUTIONS | Hyderabad, India

Product Quality Assurance Engineer (Client: Schneider Electric) | Nov 2020 – Aug 2023

- **Subject Matter Expert (SME) for Arcestra IDE**, simulating real-time behaviour for industrial control components including FBMs, Controllers, Fieldbus, HART, FDE and DTM devices within Oil & Gas/Manufacturing domains.
- **Enhanced a hybrid automation workflow** using XML scripting via the "Direct Access" CLI, integrated with **Python and Robot Framework** for deep-level SQL database validation.
- **Spearheaded the transformation** of 50% of manual test cases into ~5,000 reusable automation scripts, reducing market release timelines by 35–40%.
- **Led Regression Testing for 6+ major releases** (Arcestra/CS versions 7.3 through 8.0), identifying critical bugs early in the STLC and tracked in Azure DevOps TFS.
- **Pioneered UI Automation R&D** to overcome legacy element identification challenges, evaluating and implementing solutions using **UFT, pywinauto, and Tosca**.
- **Optimized data verification** by integrating advanced Excel formula techniques and Python scripting for large-scale SQL validation, boosting framework efficiency by 40%.

KEY ACHIEVEMENTS & AWARDS

- **Sapphire Award ("Always Striving, Never Settling")**: For successfully managing framework challenges during the execution of 8,000+ functional test cases during a critical regression cycle.
- **"Working as One" Badge**: Recognized for the successful implementation of Desktop UI Automation during a company Hackathon.
- **Technical Excellence Awards**:
 - For identifying critical memory leakages in the NovAtel Application Suite (NAS).
 - For providing Python and testing support for SCS Project.
 - For significantly enhancing usability and eliminating the bottleneck of being unable to leverage the C++ tools in the Python environment.
 - For resolving the defects and redesigning the corrections service package (nov_hera_caster).