KABUNDI Tshisuaka

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Professional Summary

Highly analytical and results-driven professional transitioning from 18+ years of extensive experience in Industrial Automation and Maintenance Engineering to a Staff Software Systems Engineer role. Proven expertise in systems troubleshooting, electrical diagnostics, and PLC programming directly translates to a strong foundation in behavior validation and system design. Possessing a B.S. in Software Engineering and recent certifications in Full Stack Web Development and QA Software Testing, I am adept at applying rigorous problem-solving and verification methodologies to complex systems. Seeking to leverage deep domain knowledge in industrial control systems and newly acquired software development skills to design and implement validation strategies for automotive software and prototype complex systems at General Motors.

Technical Skills

Programming & Scripting: Python, JavaScript, HTML5, CSS3, SQL, C++ (PLC) **Frameworks & Libraries:** React, Node.js, Express, MongoDB, PostgreSQL, jQuery **Testing & Validation:** QA Methodologies, Test Case Design, Automated Testing (basic), System Verification, Behavior Validation Principles **Industrial Systems:** PLC Programming (Ladder Logic, Structured Text), HMI/SCADA Systems, Industrial Control Systems, Electrical Troubleshooting, Diagnostics, Robotics **Tools & Other:** Git, GitHub, VS Code, Linux, Microsoft Office

Work Experience

Maintenance Engineer (Consolidated Experience across 8+ Companies) | 2007 – Present

- Industrial Automation & System Design: Led the maintenance, repair, and optimization of complex industrial automation and control systems, including PLC-based machinery, ensuring maximum uptime and operational efficiency across high-volume manufacturing environments.
- Systems Troubleshooting & Diagnostics: Applied advanced electrical troubleshooting and diagnostic techniques to rapidly identify and resolve system failures in high-pressure settings, minimizing production downtime.
- Verification & Validation: Developed and executed rigorous testing and verification procedures for newly installed or modified PLC programs and electromechanical systems, ensuring their reliable and safe behavior validation before deployment.
- **Programming & Logic:** Utilized **PLC programming** (e.g., Allen-Bradley, Siemens) to implement control logic, sequence operations, and integrate new components, demonstrating a strong foundation in structured, logic-based system development.
- **Project Leadership:** Successfully managed cross-functional projects, often involving the **prototyping** and installation of new equipment, requiring detailed planning and coordination with production and engineering teams.

Education

- Bachelor of Science in Software Engineering, University of Phoenix (2016)
- Full Stack Web Development Bootcamp Certificate, Georgia Institute of Technology (2023)
- QA Software Tester Certificate, JanBask Training (2025)
- Technical Engineering in Electromechanical, DRC (Democratic Republic of Congo)

Projects

Automated Test Suite for Industrial Control System Simulator

- Developed a Python-based automated test suite to simulate and validate the behavior of a virtual industrial control system, mimicking real-world PLC interactions.
- Designed test cases focused on edge conditions and failure modes (**verification**) to ensure system robustness and reliability.
- Utilized object-oriented programming principles to create reusable test modules, demonstrating proficiency in scalable software **system design**.

E-commerce Platform with Integrated System Monitoring

- Built a full-stack e-commerce application using the MERN stack (MongoDB, Express, React, Node.js).
- Implemented a custom logging and monitoring dashboard to track system performance, error rates, and user interactions, directly supporting a proactive approach to **validation and verification**.
- This project showcases the ability to **prototype complex systems** and manage both front-end and back-end logic.