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.