

KABUNDI Tshisuaka

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Professional Summary

Highly motivated and results-driven professional with **18+ years of extensive experience** in complex industrial automation, control systems, and maintenance engineering, now transitioning to a Senior Software Engineering role. Proven expertise in **PLC programming**, electrical troubleshooting, and diagnostics, which translates directly to strong **systems thinking**, **logical problem-solving**, and **behavior validation** in software development. Completed intensive training in modern software development, including a **Full Stack Web Development Bootcamp** and a **QA Software Tester Certificate**. Seeking to leverage a unique background in high-pressure, mission-critical environments to establish **coding best practices**, facilitate **cross-team collaboration**, and lead robust **validation efforts** for General Motors' Behavior Validation team. Adept at applying a systematic, quality-first approach to ensure strong **coding standards** and system reliability.

Technical Skills

Category	Skills
Programming/Web	JavaScript (ES6+), Python, HTML5, CSS3, React, Node.js, Express, MongoDB, SQL
Automation/Control	PLC Programming (Ladder Logic, Structured Text), Industrial Automation, Control Systems, Diagnostics, Electrical Troubleshooting
Software Development	Software Testing (Unit, Integration, E2E), Quality Assurance (QA), Behavior Validation, Git, Agile/Scrum, Strong Coding Standards
Transferable	Logical Problem-Solving, Systems Analysis, Cross-Team Collaboration, Leadership, High-Pressure Diagnostics

Professional Experience

Maintenance Engineer (Consolidated Roles) | *Multiple Companies, USA 2007 – Present*

Leveraged 18+ years of hands-on experience in maintaining and optimizing complex, mission-critical manufacturing and industrial systems, demonstrating deep expertise in system reliability and root cause analysis.

- **Systematic Problem-Solving & Validation:** Consistently performed advanced **electrical troubleshooting** and diagnostics on intricate machinery and control systems, reducing downtime by an average of 15% through effective root cause analysis and precise repair.
- **Industrial Automation & Programming:** Developed, modified, and maintained **PLC (Programmable Logic Controller) programs** and industrial control systems, directly translating to experience in low-level programming, state machine logic, and system behavior validation.
- **Process Optimization:** Led maintenance engineering operations to ensure adherence to strict operational and safety **standards**, mirroring the need for strong **coding standards** and best practices in software development.

- **High-Pressure Collaboration:** Operated effectively in fast-paced, high-pressure manufacturing environments, requiring quick decision-making and seamless **collaboration** with production, safety, and engineering teams.
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Selected Software Projects

Full Stack E-commerce Platform | *Georgia Institute of Technology Bootcamp* * Developed a scalable MERN stack application, implementing user authentication, product catalog management, and a secure payment gateway. * Applied **strong coding standards** and utilized Git for version control, facilitating effective **collaboration** within a development team. * **Validation Focus:** Implemented comprehensive unit and integration tests using Jest and Supertest to ensure data integrity and reliable system **behavior validation** across front-end and back-end services.

Automation & Behavior Testing Suite | *Personal Project* * Created a Python-based testing suite to simulate and validate the behavior of a hypothetical industrial control system. * Designed test cases focused on edge conditions and failure modes, directly applying diagnostics and **systems thinking** expertise from maintenance engineering to software **validation efforts**.

Education & Certifications

QA Software Tester Certificate (2025) *JanBask Training*

Full Stack Web Development Bootcamp Certificate (2023) *Georgia Institute of Technology*

Bachelor of Science in Software Engineering (2016) *University of Phoenix*

Technical Engineering in Electromechanical *DRC (Democratic Republic of Congo)*

Translation of Experience: Automation to Software

The core principles of industrial **automation** and **PLC programming** are directly transferable to software engineering and **behavior validation**:

Industrial Automation/PLC	Senior Software Engineering/Behavior Validation
PLC Programming (Ladder Logic, Structured Text)	Low-level programming, state machine design, and system logic implementation.
Control Systems & Diagnostics	Systems thinking , debugging complex distributed systems, and root cause analysis.
Ensuring Machine Reliability	Leading validation efforts and establishing coding best practices for system reliability.
Troubleshooting Electrical/Mechanical Failures	Systematic problem-solving and diagnostics for software bugs and system failures.