

Elio Koka

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WORK EXPERIENCE

Wheel.me

Apr. 2024 – Present

Robotics Test Engineer

Detroit, MI

- I optimize product stability and performance by developing and executing comprehensive validation and test plans for autonomous robotic systems, while directing QA operations across the North American division.
- Implement SIL and HWIL testing methodologies with automated testing pipelines deployed via Azure DevOps and managing Docker registries with Ansible for CI/CD, enhancing software safety verification processes.
- Architected and implemented Cucumber-based automated smoke tests, increasing daily deployment frequency by 25%, improving overall system stability and increasing visibility of software build quality via HTML reports.
- Leveraged embedded Linux expertise to develop hotfixes for customer-reported issues, resulting in increased customer satisfaction and reduced repeat issues.

Carbon Robotics

Jun. 2022 – Apr. 2024

Robot Bring-up Engineer (Integration and Validation Engineer)

Livonia, MI

- Spearheaded end-to-end validation and integration for AI-powered agricultural robots, developing test cases and plans for autonomy and AI testing across software, hardware, and electrical subsystems.
- Implemented GitHub Actions for CI/CD, streamlining the integration and testing processes by automating creation of customized system and firmware images for cutting-edge robotic servers and embedded systems.
- Revolutionized robot integration validation by developing Python and C++ automation solutions, reducing validation times by 83% and saving over 1500 hours annually.
- Served as a key communicator between development teams and stakeholders, resolving complex issues and maintaining customer satisfaction through detailed technical reporting.

TechSmith Corporation

May 2019 – Aug. 2021

IT Support Engineer (Systems Engineer I)

East Lansing, MI

- Operated, maintained, and troubleshooted IT infrastructure, systems, and network, with a focus on developing automation solutions for recurring tasks using PowerShell and Python and participating in IT project execution.
- Improved efficiency in distributed systems and service-oriented architectures by triaging with DevOps team.
- Maintained and optimized MySQL databases, microservices, and Azure VMs, ensuring data integrity and peak performance for mission-critical business applications and organizational data infrastructure.
- Led the backend integration of BigID to existing MongoDB instance, ensuring streamlined discovery of correlations in customer PII and maintaining strict compliance with GDPR regulations.

EDUCATION

Michigan State University

May 2022

Bachelor of Science, Computational Mathematics – Focus in Machine Learning

East Lansing, MI

SKILLS

Technical Skills: Python • C++ • PowerShell • Cucumber • SIL/HWIL Testing • Azure DevOps • GitHub Actions • SQL • MongoDB • Embedded Linux • Windows • Docker • Git • Robotic Systems Integration • IT Infrastructure Management • Distributed Systems • Network Troubleshooting • AI and Machine Learning
ADDITIONAL: Test Case Development and Execution • Automated Testing • Test Plan Creation • Performance and Stability Testing • Cross-functional Team Collaboration • Technical Documentation and Reporting • Customer Issue Resolution • Stakeholder Communication • Problem-solving • Critical Thinking • Autonomy and AI Systems Knowledge • Agricultural Robotics Experience • Data Privacy and GDPR Compliance