ELIO KOKA

ROBOTICS TEST ENGINEER

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ABOUT

Robotics Integration and Test Engineer specializing in system and laser integration, software/firmware testing, and automation. Proven ability to enhance reliability and efficiency through innovative solutions and cross-functional collaboration. Proficient in Python, C++, MATLAB, and Linux systems. Effective leader with customer engagement experience. Eligible for security clearance and open to relocation.

EXPERIENCE

ROBOTICS TEST ENGINEER

Wheel.me | Apr 2024 - Present

- Led QA operations across 15 North American customer sites, increasing product performance by 25% and reducing customer-reported issues by 30% by directing engineering efforts to critical areas.
- Enhanced system reliability by integrating and testing software/firmware with hardware-in-the-loop systems, resulting in a 20% reduction in system failures.
- Automated diagnostics processes using Python scripts, cutting manual testing efforts by over 50% and accelerating issue identification by 35%.
- Optimized Jira workflows, decreasing cross-team issue resolution timeand improving project tracking.
- Presented software and firmware status and risk mitigations to stakeholders, facilitating informed decision-making and securing additional funding for critical projects.

ROBOT BRING-UP ENGINEER (HW/SW INTEGRATION AND VERIFICATION ENGINEER)

Carbon Robotics | June 2022 - Apr 2024

- Integrated and tested CO_2 and diode laser systems for AI-targeted weed elimination with sub-millimeter precision, addressing latency challenges to optimize performance.
- Identified and resolved assembly issues during prototype verification and validation, enabling production efficiency and improving product quality.
- Saved over 1,500 hours annually by designing and deploying Python automation processes, reducing validation time by 83%.
- Conducted in-depth debugging of sensors, PCBs, wiring, and laser components to resolve design/manufacturing issues.
- Reduced assembly downtime by 25% by resolving complex softaware and firmware issues.
- Standardized testing workflows, documenting procedures for continuous improvement.
- Presented project updates and risk mitigations to stakeholders, enhancing transparency and alignment.

SKILLS

- Integrated and tested CO_2 and diode lasers for AI-driven weed targeting with sub-millimeter precision; optimized performance by reducing latency.
- Developed and executed integration and test plans for complex robotics systems on Linux platforms.
- Created automation scripts in Python, C++, and MATLAB, reducing testing times by up to 83%.
- Experienced with RS422, I^2C, GigE, SPI, TCP, UDP; enhanced system integration processes.
- Leadership & Collaboration: Led QA operations across North America; coordinated cross-functional teams; utilized Jira for project management.
- Customer Engagement: Presented project status and risk assessments; simulated customer issues to improve product reliability.

EDUCATION

MICHIGAN STATE UNIVERSITY

Bachelor of Science, Computational Mathematics - Focus in Machine Learning
2017 - 2022

ISTQB® CERTIFIED TESTER FOUNDATION LEVEL

2024