## Richard Sterling Jackson

# linkedin.com/in/richard-sterling-jackson | (832) 495-7034 | [Richard.Sterling.Jackson@gmail.com](mailto:Richard.Sterling.Jackson@gmail.com) | [GitHub](https://github.com/richardsterlingjackson/richardsterling-portfolio)

**SUMMARY**

Software-Driven Controls & Integration Engineer with a strong foundation in Computer Science and interdisciplinary expertise in Earth & Space Exploration. Experienced in software quality assurance, full-stack development, and system design. Skilled in C++, Java, Python, modern web frameworks, and working knowledge in Programmable Logic Controllers, focused on delivering scalable solutions.

**EDUCATION**

**B.S. Computer Science | B.S. Earth & Space Exploration: Geological and Planetary Sciences**Arizona State University, Tempe, AZ December 2024 | GPA: 3.67

**TECHNICAL SKILLS**

**Programming Languages:** Java, JavaScript, Python, C, C++, C#, Assembly, MATLAB, Android, SQL  
**Front-End:** HTML, CSS, React, Vue.js, Angular, Next.js, Vite / **Back-End:** Node.js, Express, PHP, C#, Python

**Tools & Platforms:** Visual Studio, Visual Studio Code, IntelliJ IDEA, JetBrains, Oracle, Eclipse, NetBeans, Google Cloud Platform, PostgreSQL, Azure, Linux/Unix, GDB, ROS, Bash, Git, GitHub

**Networking, Controls, & Automation:** PLC Programming and Troubleshooting, VFD Configuration and Integration, SCADA Networks and Systems, Sensor Calibration, Control Panel Wiring, Industrial Protocols, PoE Integration, Network Design and Switch Placement, Real-time Data Routing

**Other Skills & Working Knowledge:** Full Stack Development, Web Services, Object Oriented Design, Unit Testing, End-to-End Testing, JSON, SOAP, RESTful API, Machine Learning, Autonomous Systems, Information Assurance, Cyber Security, Agile Methodology, Analytical Thinking, and Problem Solving

**PROFESSIONAL EXPERIENCE**

**Engineering Solutions Company | Water Quality and Maintenance Engineer**  06/2025 – present

Renton, WA | Water Treatment

* Water Quality Assurance: Conduct diagnostic testing of water quality and treatment systems to ensure regulatory compliance across key parameters including turbidity, pH, and UV disinfection efficacy.
* Mechanical Systems Maintenance: Oversee the operation, repair, and preventive maintenance of chlorine gas and lime injection systems, UV reactors, and other critical disinfection and dosing equipment.
* Design & Fabrication: Retrofit custom machinery to improve testing, cleaning, and distribution processes.
* Compliance: Maintain detailed records of water quality metrics, equipment performance, and maintenance.

**The Boeing Company: NASA Space Station (CO-OP) | Quality Assurance Engineer**  05/2005 – 01/2007

Houston, TX | Johnson Space Center | **Summer 2005**, **Summer 2006**, **Fall 2006**

* Analyzed and tested flight code and ISS system components, ensuring mission success.
* Trained in Risk Management and Quality Assurance adhering to CMMI Level 5 standards.
* Contributed to the Boeing/NASA Y-Prize competition, designing an innovative docking mechanism.
* Developed check-in/checkout system in Visual Basic .Net for the NASA Media Library

**Arizona State University, Tempe, AZ: Research Assistant** 08/2018 – 05/2019

**Arizona State University, Tempe, AZ: Undergraduate Engineering Teaching Assistant** 08/2019 – 12/2019

**ACADEMIC PROJECTS**

**MusMe App by TwinsMusic | ASU Capstone** 2021

* Collaborated with a development team that programmed and maintained a music application website.
* Programmed and developed the front-end and back-end using Node.JS, React, and Express.

**FURI | Fulton Schools Undergraduate Research Initiative** 2018 – 2019

* Researched and designed a supercapacitor for energy harvesting, working under the guidance of   
  an Electrical Engineering professor in a Research Lab.

**Hack-A-Thon Student Check-in System Project** 2018

* Collaborated with a 6-person team to develop a student check-in system using GC-Python.

**Autonomous Vehicle Design and Implementation** 2017

* Designed and programmed an autonomous vehicle with a 5-person team, utilizing MATLAB and   
  waterfall methodology.

**INDUSTRY ORGANIZATION EXPERIENCE**

**Software Developers Association** 2016 – 2021

**NASA Space Grant Robotic | Electrical & Computer Engineering Team** 2016 – 2018