Daniel Folse

danielcfolse@gmail.com| daniel.folse@rtx.com | +1 (346) 307-5142 | **Secret Clearance**

EXPERIENCE

RTX | *Engineering Leadership Development Program, Internship*

Raytheon Missiles & Defense Systems, ELDP, Tewksbury, MA *March 2025 – Present*

- Designed and implemented embedded solutions in Ada and C++ for communications software for Patriot.
- Led effort to implement industry standard practices and documentation to remove tribal knowledge and increase functionality and security of the team and codebase.

Raytheon Missiles & Defense Systems, ELDP, Tucson, AZ *June 2024 – March 2025*

- Designed and implemented embedded solutions in C++ and C, working with components, services, and messaging.
- Served as the SME for static analysis and stood up several tools to accelerate, expand, and enhance the use within the program.
- Presented and led meetings, wrote and took official documents through signature cycle, wrote and updated requirements, and analyzed data for test events.

Raytheon Missiles & Defense Systems, Intern, Tucson, AZ *August 2022 – May 2024*

- Developed automated unit test framework for C++ builds with Python and Bash, enhancing test accuracy and efficiency
- Collaborated on Agile teams to streamline DevOps pipelines with Azure YAML, boosting productivity and saving time
- Executed formal test engineering, ensuring high quality software delivery and system reliability in official test events
- Utilized MATLAB and Python for telemetry testing, improving data processing and analysis capabilities

SPIDER | *Tucson, AZ* *August 2023 – May 2024*

UArizona Biosystems Department, Software Lead and Team Lead

- Led a team of six interdisciplinary engineers from initial requirements elicitation through design, implementation, testing, and final delivery of the robotic SPIDER for agricultural management with user pathing, obstacle avoidance, spectrometry capture, data processing, and bio-inspired locomotion.
- Wrote all the software utilizing the ROS2 framework with Python and C++ for a modular design, making use of GPU accelerated libraries like PyTorch with Nvidia Jetson, contributed to the electrical and mechanical design.
- Wrote the dynamic locomotion algorithm, coordinating 24 servos for seamless motion, taking inspiration from nature, developed ROS2 drivers for several sensors, a full simulation for testing the system, etc.
- Won Best Overall Design out of 96 total competing teams after a successful presentation, documentation package, and live demonstration.

Global Medic Force | *Remote* *January 2024 – May 2024*

Full Stack Mobile Chatbot Developer/Team Lead

- Designed and implemented an Expo Android/iOS mobile application in a team of five, utilizing AI with RAG chatbot integration with offline/online capabilities for use by medical volunteers in Africa treating HIV.
- Used a modified MERN stack with React Native and MongoDB with offline SQLite dynamic switching.
- Worked with the domestic customers (and international customers by domestic proxy) through biweekly meetings understanding and delivering on their needs.
- Responsible for Chatbot integration with custom APIs and unit/UI testing all source files with Jest
- CI/CD pipelines for build and release, with included linting, static analysis, and artifact upload deployed.

LEADERSHIP & EXTRACURRICULARS

Korean American Student Association | *Tucson, AZ*

August 2021 – May 2022, August 2023 – May 2024 Finance, President

- Led an executive board of 10 with 4 interns, raising over $3000 over 2 years, increasing membership by 3x from year over year.
- Put on cultural events and collaborations between other Universities Korean clubs as well as intra-university cultural associations.
- Developed talent through the intern program where each of the interns became full board members the following year.

ADDITIONAL INFORMATION

- **Skills:** Embedded Systems, Robotics, ROS2, Agile, Static Analysis, Test Automation, DevSecOps, AI, Rust, CI/CD, RAG, YAML, MATLAB, C++, Python, C, Data Analysis, Presentation, Javascript, MERN, Conflict Resolution, UML, Communication, Verilog, Digital Logic, Leadership, Algorithms, Java, Front End, Backend, Jest, Requirements, Documentation, Docker

EDUCATION

University of Arizona **|** *Tucson, AZ* *August 2020 – May 2024*

Bachelor of Science, Major: Software Engineering, Magna Cum Laude

W.A Franke Honors College Graduate

Awards: *Most Outstanding Senior, Dean's List with Distinction, Best Overall Design Senior Design Thesis*