

SKILLS

- **Languages:** JavaScript, Typescript, C++, C#, C, Java, VBA, Haskell, Perl, XML, XSL, Rockwell Studio 5000(Ladder Logic, Structured Text, Function Block Diagram),Python
- **Technologies:** React, Firebase, Express, Node.js, Tomcat, Apache, Proxmox, Podman, Docker, Jenkins, Gitlab, Jama, Accurev, Git, ROBOT Framework, Selenium, Allen-Bradley Control Logix, Common Industrial Protocol, WebSockets, Supabase, Postgres

PROFESSIONAL EXPERIENCE

- **Jacobs Engineering** Kennedy Space Center, FL
Operations Control Systems Lead Software Engineer May 2021 - Present
 - **Operations Software Engineer:** Provide support to the operations team as a subject matter expert during execution of safety critical activities providing real-time insight and diagnostics as questions came about control system.
 - **Lead Software Engineer:** Lead a team of 5-10 engineers in completing software development tasks and meeting critical deliverable deadlines for NASA Environmental Control System. Used automation and organization to recover from severe schedule slipping.
 - **Rockwell Suite:** Created, maintained and certified human-rated Rockwell PLC software and Factory Talk View Local Station and Panelview Applications for several critical Ground Support Equipment Systems for NASA Artemis program.
 - **Scripting:** Saved thousands of man-hours by developing several tools to streamline development and certification of PLC software. Automated several repetitive tasks with Python and Excel VBA. Developed real-time software in C++ for use during Artemis Launch countdown for controlling human-rated critical Ground Support Equipment.
 - **Off-The-Shelf Software Integration:** Reduced weekly repetitive task load for all PLC developers by developing integrations for off-the-shelf products including Clearquest, Jama, and Accurev to create a quantifiable cost savings on a weekly basis.
 - **Full Stack Development:** Developed full stack applications for interfacing with databases, and automating workflows using React and Node.js.
 - **Serverless Javascript and React Projects:** Created several client-rendered Javascript and React applications to improve code reviews, test authoring, test execution, and field PLC and HMI triage. Heavily leveraged XML manipulation and visualization to transform non human readable xml into user-digestible formats.
 - **Automated Unit and Verification Testing:** Introduced and developed numerous automated test methodologies ranging from PLC software to Web Apps. Caught hundreds of discrepancies in certified code through out of the box thinking and deep automated analysis.
- **Marching Band Drill App** Merritt Island, FL
Independent Software Developer May 2024 - Present
 - **Marching Band Drill Visualisation Web App:** Created a Progressive Web app in React for marching band drill instruction and visualizing drill spots. Replacing the archaic dot book with modern technologies like React, with a postgres backend.
- **Music Technology Specialist and Instructor** Merritt Island, FL
Merritt Island High School Marching Band May 2019 - Present
 - **Front Ensemble and Woodwind Technician:** Teach Music Theory and Instrumental techniques to high school front ensemble, and Woodwind students. With a focus on fundamentals and incoming students.
 - **Synth and Electronics Technician:** Write Synthesizer Parts for Marching Band, program patches and effects in Mainstage. Design, install, and maintain PA systems and student training for performance and rehearsal use.

EDUCATION

- **University of Central Florida** Orlando, FL
Bachelor of Science with Honors in Computer Engineering; GPA: 3.25 Aug. 2017 – May 2022

HONORS

- **Best Interdisciplinary Senior Design Project Award** Orlando, FL
UCF Senior Design Showcase *Apr. 2022*
 - **Portable Fluorometer for Lyme Disease Detection:** Affordable, battery powered, WiFi-enabled fluorescence sensor for Lyme Disease Antibody Detection. Designed PCB and firmware for Senior Design Project. Used websockets for real-time controls and served web page from ESP-32