Lucas Colias

Software Engineer - DoD Clearance Level: Secret

Chino Hills, California

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(714)-272-2998

Education

California State University, Long Beach	2018-2021

Bachelor of Science, Computer Science

Mount San Antonio College	2014-2017

Associates of Mathematics

Work Experience

Northrop Grumman — San Diego, CA
Software Engineer — *2022-Present*

- Implemented PHM functionality within SCA-compliant diagnostic waveforms in C++, enabling predictive maintenance and enhancing system reliability.
- Collaborated on PHM system design, integrating diagnostic waveforms and fault indicators and detection to provide actionable insights for proactive system maintenance.
- Authored requirements, design, and test documentation, ensuring compliance with program and customer standards.
- Designed and implemented C# integration/testing tools for hardware modules, reducing manual testing time for the integration team.
- Maintained software configuration management with Git and ClearCase, enforcing version control best practices.
- Ensured software met stringent DoD cybersecurity and quality assurance standards.
- Presented preliminary and critical design reviews to internal teams and external stakeholders, improving project alignment and approval cycles.
- Contributed to Agile process (stand-ups, sprint planning, retrospectives), driving consistent on-time delivery of sprint goals.
- Collaborated with cross-functional teams to maintain program scope and plan out tasking accordingly.

Lutiya LLC — Long Beach, CA
Software Engineer Intern — *2021 January - June*

- Built a water quality monitoring system in C++ and JavaScript using the MQTT protocol, enabling real-time reporting to Google Cloud.
- Integrated MongoDB Atlas for cloud-based data storage and retrieval, ensuring secure and scalable data handling.
- Enhanced a Smart City Angular web application to visualize contamination data, providing municipalities with actionable insights.

Projects

Water Quality Network: Network of embedded controllers programmed in C++ that poll water quality data. Data is sent to Google Cloud server, analyzed, then visualized in an angular web application.

Compiler Scanner: A scanner built in python to scan files using Deterministic Finite Automaton similar to C.

Portfolio Website: Personal website build with HTML, CSS, and Javascript hosted on a Raspberry Pi using Nginx as the backend server and a Cloudflare tunnel to serve public requests.

Skills

Languages: C++/C, Javascript, Python, C#   **Technologies**: React, Nginx, Cloudflare, Git, ClearCase