

Lucas Colias

Software Engineer - DoD Clearance Level: Secret
Chino Hills, California

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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

- Authored software requirements, design, and test documentation, ensuring compliance with the organization's standards and customer expectations.
- Implemented PHM functionality within SCA-compliant diagnostic waveforms in C++, enabling fault indication and detection critical to the systems reliability.
- Designed and implemented functionality that performed hardware testing for a new module.
- Collaborated with a cross-functional team on the systems design by identifying possible software faults and providing actionable items to implement said faults increasing the robustness of the system.
- Designed and implemented a C# integration/testing tool for hardware modules, reducing manual testing time for the integration team.
- Ensured software met stringent DoD cybersecurity and quality assurance standards. Maintained software configuration management with Git and ClearCase, enforcing version control best practices.
- 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, maintaining program scope, and planning out tasks accordingly.
- Mentored incoming interns and new hires on the systems architecture as well as providing insight into the specifics of the PHM functionality that I was in charge of.

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 built 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, C#, Javascript, Python

Technologies: React, Nginx, Cloudflare, Git, ClearCase