Lampson Nguyen

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# Summary

Experienced **Senior Software Engineer** with **8+ years** specializing in **software development**, **GPS** and militarysoftware, and mission-criticalapplications. Proficient in **Ada, C++, and C#**, with expertise in **Green Hills Integrity RTOS**, **MIL-STD-1553**, and **ARINC-429 protocols**. Skilled in **Functional Quality Testing (FQT)**, **automated test** pipelineconfiguration for classified environments, Experienced in **HSM** integrationvia **PKCS11**, **secured** **binary** image building, and **data** **parsing**. Collaborative team player with a strong focus on delivering reliable, high-quality software solutions in **Agile** environments. Hold **Active DOD Secret Clearance** and **U.S. Citizenship.**

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| Skills & AbilitiesLanguages: C#, Python, MATLAB, R, C++, Ada, JavaWeb Development: Java Servlets, React, .NET CoreWeb Languages: HTML, CSS, D3, JavaScript, jQueryMachine Learning: Neural Network, TensorFlowDatabase: MySQL, SQL Server **Project/Source Management:** Git, Bitbucket, GitHub, ClearCase  **Tools:** MS TFS, JIRA, Confluence, ClearQuest, Smartbear  **Code Coverage and Analysis:** Codepeer, VectorCAST, NCover  **Cryptography**: Hardware Security Module, PKCS  **CI/CD**: Bamboo, Jenkin, YAML  **Test Automation**: TestComplete, TestFramework, NUnit | EducationMS, Computer Science  May 2022California state University, Channel IslandsBS, Computer Engineering   May 2016California state university, Fullerton |

# Professional Experiences

## Principle Full Stack Software Developer | Northrop Grumman | Jan 2024 – Present

* Developed in C# and maintained mission planning software using .NET Framework and ASP.NET Core.
* Designed and deployed .NET Core web servers, optimizing backend services for scalability and performance.
* Integrated and configured Hardware Security Module (HSM) using PKCS11 for secure cryptographic operations.
* Established CI/CD pipelines with Jenkins and YAML scripts for automated build, testing, and deployment processes.
* Created automated testing suites using Smart Bear’s TestComplete to ensure software reliability and reduce manual testing efforts.
* Monitored and troubleshooted automated test stack daily.
* Collaborated cross-functionally to define requirements, resolve issues, and deliver features on time.
* Developed a secure binary image builder based on Lockheed Martin's design to generate encrypted and secure firmware images.
* Implemented a binary parser to extract, analyze, and validate critical data from secure firmware images.

## Senior Software Engineer | Raytheon Intelligence & Space | May 2022 – Dec 2023

* Developed embedded software in Ada to enhance the resiliency of navigation systems software.
* Integrated Ada code with Green Hills Integrity RTOS, ensuring system robustness and reliability.
* Tested GPS interface software using protocols MIL-STD-1553 and ARINC-429.
* Performed code coverage and static analysis to ensure compliance with government safety standards.
* Analyzed large GPS datasets to validate software accuracy and performance.
* Wrote test scripts for Functional Quality Tests (FQT) to validate GPS software reliability and performance, ensuring compliance with government MSO standards.
* Configured and deployed VectorCAST for code coverage analysis in a classified lab environment, adhering to strict government security protocols.
* Investigated, troubleshot, and resolved complex software defects in mission-critical environments.

## Senior Software Engineer | NAVAIR | Jan 2021 – Mar 2022

* Scum master and team deputy of the development team.
* Developed a **C# decoder application** to process **military aircraft post-flight data** into a **SQL relational database**.
* Enhanced software performance using **multi-threading** and optimized database transactions.
* Conducted **unit testing suites** for improved code integrity and collaborated with **QA teams** for verification.
* Migrated legacy Visual Basic system to C# and applied new pattern following coding standard.

## Software Engineer | NAVAIR | Nov 2017 – Jan 2021

* Designed user interfaces for displaying flight data on military systems.
* Developed and optimized SQL Server stored procedures for processing aircraft data efficiently.
* Migrated legacy C++ applications to C# using MVVM design patterns.
* Deployed backend services as Windows Services, resolving memory bottleneck issues in existing frameworks.

## Junior Computer Engineer | NAVAIR | Aug 2016 – Nov 2017

* Deployed an image recognition web app that can classify types of aircraft and detect weapon types on the aircraft.
* Designed and deployed front end to Navy's management the tools and data using Bootstrap.
* Integrated new tools and software into Navy Commands to fulfill current use case and improve processes.
* Processed Technical Engineering documents to ensure data confidentiality before delivering to Foreign Military Customer.

# Award and Certificate

## Collins Aerospace – RStar Innovation 2023

## NAVAIR Point Mugu - On the Spot Award: 2018

## Carnegie Mellon University – Personal Software Process 2017

Defense Acquisition Workforce Improvement Act (DAWIA) Level 2 Certification