

Lampson Nguyen

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Summary

Experienced **Senior Software Engineer** with **8+ years** specializing in **software development**, **GPS** and military software, and mission-critical applications. 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** pipeline configuration for classified environments, Experienced in **HSM** integration via **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**.

Skills & Abilities

LANGUAGES: C#, Python, MATLAB, R, C++, Ada, Java

WEB DEVELOPMENT: Java Servlets, React, .NET Core

Web Languages: HTML, CSS, D3, JavaScript, jQuery

MACHINE LEARNING: Neural Network, TensorFlow

DATABASE: 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

Education

MS, COMPUTER SCIENCE

MAY 2022

CALIFORNIA STATE UNIVERSITY, CHANNEL ISLANDS

BS, COMPUTER ENGINEERING

MAY 2016

CALIFORNIA 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, troubleshooted, 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