# JosephHoang Nguyen

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#### SECURITY CLEARANCE

Secret DoD

#### **EDUCATION**

## California State Polytechnic University, Pomona

Graduated May 2020

B.S., magna cum laude, Computer Engineering

#### **Relevant Coursework**

Data Structures/Algorithms, Design using Verilog, Digital Logic Design, Microcontrollers, Microelectronics, Object Oriented Design, Operating Systems for Embedded Systems, Network Security, Robotics, Software Engineering, TCP/IP Internetworking

#### **EXPERIENCE**

#### **Cubic Transportation Systems**

San Diego, CA

June 2020 - Present

Associate Systems Engineer

- Design use cases and design specifications, which drive development of system capabilities, to complete customer contracts and ensure emergency transit features are ready to be consumed by the development team.
- Drive Gap Analysis processes for new transit functionalities by measuring system-wide impacts on existing product implementations thereby supporting successful deployment of system releases and fixes.
- Supported software development teams by overseeing the implementation of low-level subsystem requirements and directly guiding the design of system features in an agile-scrum environment.

#### NAVSEA - Naval Surface Warfare Center, Corona Division

Corona, CA

Student Engineer - Software and Systems

June 2019 - Sept 2020

- Analyzed database application's legacy source code to facilitate the transition of Interval Calibration Analysis Application from a client based operation (VBA/SQL) to a web based operation (C#/ASP.NET).
- Defined and created test cases, event workflows, and requirement traceability matrix to attest mission and operational readiness of the Calibration Exchange Pool.
- ❖ Drove the development of the Strategic Systems Programs (SSP) Calibration Exchange Pool Operational Test Plan that is currently deployed to validate transition of the capability to SSP calibration laboratories at Strategic Weapon Facility Pacific and Atlantic.

#### **American Technical Services, Inc**

Norco, CA

Engineering Technician

Oct 2018 - June 2019

- ❖ Conducted performance tests, audits, and uncovered deficiencies in Metbench Calibration Management System (MCMS) that will be implemented across the Navy fleet.
- \* Revised test cases, created event workflow, and developed a requirement traceability matrix to validate the operational readiness of the MCMS system.
- Collaborated with project leads and software developers to ensure system requirements were met.

#### **ENGINEERING PROJECTS**

# Remote Pilotless Vehicle - Lab Manager

May 2019 - May 2020

- \* Researched and developed TCP/IP communication between student-developed server/client setup (C#) to achieve successful transmission of captured simulator controls via LTE network to vehicle.
- Constructed system recovery methods through design and implementation of communication loss protocols.
- ❖ Enhanced system performance by developing data tunnels, using C#, for each control variable to decrease latency and improve responsiveness.

## **Multithreaded Chat Server**

April 2020

- ❖ Developed a multithreaded TCP/IP communication server for instant messaging purposes via **Python.**
- \* Researched multithreading processes and implemented its principles within both client and server source codes in order to concurrently handle receive, send, user status, and disconnect functionality.

# **SKILLS**

- ❖ C, C#, C++, Cadence PSpice (Schematic Design), Java, MATLAB, PIC Assembly, Python3, and VBA
- ❖ FPGA boards, Arduinos, Raspberry Pis and PIC18F4321