





### **Montana State University**

BS Computer Engineering

**2005 – 2009** *Bozeman, MT* 



#### Naval Undersea Warfare Center - Division Keyport

August 2016 - Present

Submarine Undersea Defensive Systems In-Service Engineering Agent (ISEA)

Keyport, WA

- Responsible for the creation of new hardware and software designs, as well as supporting documentation
- System engineer for a submarine launch control panel undergoing a technology refresh
- Ocordinated with logisticians, contracts specialists and fleet support personnel to ensure successful deployment of new systems

### Naval Undersea Warfare Center - Division Keyport

January 2012 – August 2016

Rapid Prototyping and Fabrication Design

Keyport, WA

- Tasked with reverse engineering a legacy vibration analysis system
- Assisted with design, troubleshooting and integration of a custom embedded system
- Designed software algorithms for vibration analysis, rotor blade imbalance calculation and tip path tracking

### **Naval Acquisition Intern Program**

July 2009 – January 2012

Systems Planning, Research, Development, and Engineering (SPRDE) - Level 2

Keyport, WA

- Ocliaborated with several teams on engineering assignments lasting 3 to 6 months
- Ocmpleted a Defense Acquisition University program focused on systems acquisition and engineering
- Assisted programs at all stages of the acquisition lifecycle

# Projects

## **Automated Tracking Analyzer Balancer System (ATABS)**

- Project objective was to re-create a set of test equipment for correcting rotor balance and tracking on fixed-wing and rotary-wing aircraft
- Designed software to produce adjustment recommendations based upon inputs from external sensors (piezoelectric vibration sensor, optical tachometer, line-scan camera)
- Project deployed to a custom printed circuit board (PCB) based around an Atmel AVR 32-bit microcontroller
- Software written primarily in C, leveraging the Atmel Studio IDE and Atmel Software Framework

## Countermeasure Launch Control Panel (LCP) Technology Refresh

- **1** Engineer overseeing the upgrade of a submarine defensive system with a form, fit, function replacement
- Worked with internal teams to proactively combat system component obsolesence issues
- Conducted/coordinated testing of new equipment prior to delivery to the fleet

## **Skills**

**Embedded Hardware** Analog and digital circuit design, schematic creation, PCB layout, PCB parts library creation, logical analysis, test hardware design

**Programming Languages and Tools** Assembly, C, C++, Arduino, VHDL, CMake, ŁTĘX, Git, GCC, Vim, GMock, GTest, Google Protocol Buffers

Currently holds a Secret clearance. Previously held a Top Secret clearance with access to Sensitive Compartmented Information based on an Office of Personnel Management Single Scope Background Investigation/Periodic Review completed on 11/22/3333.