





# **Experience / Projects**

#### Naval Undersea Warfare Center - Division Keyport

Submarine Undersea Defensive Systems In-Service Engineering Agent Senior System Engineer August 2016 – Present Keyport, WA

- Senior engineer for submarine acoustic countermeasure systems for active United States Navy defensive program currently installed on over 30 hulls
- Responsible for lifecycle engineering support including technology refresh, new design, and supporting documentation in order to meet current and future fleet requirements
- Integral part of team comprised of logisticians, contract specialists, and fleet support personnel
- Ocoordinated junior engineer support of countermeasure system hardware components including design/drawing reviews and operational certification testing prior to delivery to the fleet
- Worked with internal teams to proactively combat system obsolescence issues via lifetime buys, reverse engineering, and redesign

#### Naval Undersea Warfare Center - Division Keyport

Rapid Prototyping and Fabrication Design

Keyport, WA

January 2012 - August 2016

- Embedded Systems Engineer Automated Tracking Analyzer Balancer System
- Tasked with reverse engineering custom vibration analysis embedded test equipment to correct rotor balance and tracking on fixed-wing and rotary-wing aircraft
- Designed software functions for performing vibration analysis, rotor blade imbalance detection, and blade tip path testing
- Wrote algorithms to produce adjustment recommendations based on inputs from external sensors (piezoelectric vibration sensor, optical tachometer, line-scan camera)
- Project deployed to a custom printed circuit board designed around an Atmel AVR 32-bit microcontroller

### **Naval Acquisition Intern Program**

July 2009 – January 2012

Systems Planning, Research, Development, and Engineering - Level 2

Keyport, WA

- Ompleted a Defense Acquisition University program focused on systems acquisition and engineering
- Assisted programs at all stages of the acquisition lifecycle on engineering assignments lasting three to six months
- Designed microcontroller and programmable logic device hardware and software subsystems for integration into larger projects
- Participated in decomposition of project requirements with a systems engineering team

## **Education**

### **Montana State University**

2005 – 2009

BS Computer Engineering

Bozeman, MT

# **Skills**

**Embedded Hardware** Analog and digital circuit design, schematic symbol design, PCB footprint creation, schematic capture, PCB layout, EAGLE, KiCad, test hardware design, interface design (I<sup>2</sup>C, SPI, UART, USB, Ethernet etc...)

**Programming Languages and Tools** Bash, C, C++, CMake, GCC, Git, Google Protocol Buffers, 上下EX, Python, VHDL, Vim

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 05/24/2013.