

CRAIG OPIE

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Education

University of Hawai'i at Mānoa August 2018 - Present

MSc in Computer Science (Cybersecurity Focus) 3rd Semester

BSc in Computer Science (Cybersecurity Focus) GPA: 3.21

Nuclear Power 'A' School and Prototype (Electronics Technician) GPA: 3.64

Skills

Languages: Assembly, C/C++, Python, Javascript, Java, Swift, C#, LISP
Standards: DoD 8570 IAT Level III, DISA-STIG, FIPS, NIST, CMMI, ISO 27001, AS9100D
Technologies: Kali Tools, Crypt., Bash, Git, React.js, Node.js, SQL, MongoDB, Cloud Services

Professional Certifications

CompTIA: Security+, Project+
Clearance: Secret (JPAS)
EC-Council: Certified Ethical Hacker
ISC²: CISSP
NASA: NASA-STD-8739 (Soldering and PCB Repair)

Professional Experience

2C4 Technologies Remote - Full Time

Cybersecurity Analyst - Department of Defense (DoD) Contracts

Sept 2022 – Present

- Conducted information system analysis and risk assessments to support DISA STIG, FIPS, NIST, CMMI-DEV/3, and ISO 27001 compliance and accreditation
- Conducted application, system, and network security and vulnerability audits, assessments, and penetration testing within specified scope and established processes and procedures in DoD classified environments
- Conducted source code review, implementation, and correction using version control systems to track and report vulnerabilities and application misconfigurations
- Directly engaged customer leadership and acted as a liaison between senior management, the software development team, and cybersecurity team

Death Star Development Honolulu, HI - Full Time

Cybersecurity Analyst - NASA and DoD Contracts

July 2019 – Sept 2022

- Developed memory management plan for MCUs featuring MPUs with techniques to detect and prevent memory corruption, enhance security, and improve reliability
- Configured, built, and implemented project specific operating systems to include RTOS, PetaLinux, Embedded Linux, and Yocto builds and secured them to meet DISA-STIG requirements of the DoD
- Designed and manufactured physical cybersecurity tools using MCU circuits and PCBs using Eagle and Altium Designer
- Developed software defined radio solutions with a QT interface via GNU Radio for NI USRP 2920, 2922, and B210 radios for secure transmission of VHF, UHF, and S-Band satellite communications (C++ with Python wrappers)

- Analyzed and corrected source code for quality using source code smells and metrics
- Lead cybersecurity efforts to ensure the web server and source code were proven using pentesting
- Maintained and improved existing embedded C/C++ applications in a Linux environment
- Developed Assembly/C/C++ applications in CodeComposer Studio IDE for the MSP430 Chipset
- Maintained and improved existing applications in Vivado IDE and programmed Xilinx FPGAs
- Troubleshoot embedded system issues to include I²C, CAN bus, UART, RS422, USB, SPI, and Ethernet

Hawai'i Space Flight Laboratory Honolulu, HI

Avionics Engineer - Avionics Team

March 2019 – July 2019

- Designed, manufactured, and licensed computer boards, communications radios, and power systems for small and micro satellites meeting ISO 27001, ISO 9001, and AS9100D requirements
- Developed the Hawai'i Space Flight Laboratory's radiation test processes and procedures
- Integrated and tested components from various vendors to ensure reliability and security through system and network level APIs

US Navy Nuclear Power Electronics Technician

August 2004 – August 2018

USS Tucson (SSN 770) Honolulu, HI

Project Management Director - Reactor Control Division

March 2014 – August 2018

- Oversaw three overseas preventative and corrective maintenance projects, requiring strategic planning, design, research, and training for junior Sailors and senior leadership
- Developed new procedures and workflow channels to increase productivity and nuclear reactor control equipment reliability while maintaining proper documentation and licensing for Department of Energy (DOE) operations and maintenance of reactor plant systems

Naval Nuclear Power Training Command Charleston, SC

Digital Microprocessor Design and Fundamentals Instructor

April 2011 – March 2014

- Assisted in the development and facilitation of 150 course hours, teaching the theory and fundamentals of digital electronics and their applications to nuclear power plants
- Led the development of 10 labs, 22 hours of instruction, detailing the understanding, elaboration, and troubleshooting of digital electronics for nuclear reactor control systems
- Taught 16 classes consisting of 25-32 students in the area spanning electron flow and construction of semiconductive devices to the design and machine code programming of a Pentium Pro microprocessor, with a resultant average of 3.37 GPA on a 4.0 GPA Scale

USS Miami (SSN 755) New London, CT

Project Management Director - Reactor Control Division

April 2006 – April 2011

- Directly responsible for the operation, control, and maintenance of a Naval Nuclear Power Plant. This required compliance with complex procedures/instructions for nuclear power plant operations and handling classified material while being qualified Reactor Operator, Shutdown Reactor Operator, Engineering Watch Supervisor, and Engineering Duty Petty Officer

Projects and Hobbies

Cybersecurity, Robotics, Rockets, and PCBs Honolulu, HI

Participating and Training New Generations

April 2018 – Present

- 23rd place as sole participant in the Hivestorm 2022 cybersecurity blue team competition
- Published Cybersecurity research on Application Programming Interfaces (pending peer review)
- Developed Electronic Power Supply (EPS) for use by payloads and rovers in various applications
- NASA Student Launch Project Rookie of the Year Awardee