CRAIG **OPIE**

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Education

University of Hawai'i at Mānoa August 2018 - Present

PhD in Computer Science In Progress (Secure Software for Critical Infrastructure)

MSc in Computer Science (Secure Software Development)

BSc in Computer Science

Nuclear Power 'A' School and Prototype (Electronics Technician)

Technical Skills

Languages:	Python, Javascript, C/C++, C#, Swift, Assembly, Java, Lisp, Perl, Bash
Standards:	DevOps, DoD 8570 IAT Level III, DISA-STIG, FIPS, NIST, HL7 (Healthcare)
Technologies:	Git, Kerberos, Single Sign On, YubiKey, ReactNative, React.js, Node.js, SQL, MongoDB, AWS/Google Cloud Services, HL7 FHIR API, FastAPI, PostgreSQL, JIRA, Confluence, Jest, TLS, mTLS, CI/CD Pipelines, Terraform, Ansible

Professional Certifications

CompTIA:	Linux+, Security+, Project+
Clearance:	Secret (JPAS)
EC-Council:	Certified Ethical Hacker
ISC²:	CISSP

Professional Experience

Contractor to BAE Systems Remote - Full Time

Lead Developer AuthServices - Department of Defense (DoD) Contracts August 2023 – Present

Responsible for leading a team in the design, development, integration, and certification of custom authentication software suites which allow industry multinational professionals, top researchers, and warfighters deployed to world-wide locations access to all of the Department of Defense's High Performance Computing Modernization Program Supercomputer Clusters

• Led development of custom authentication services software suites with multi-national and industry-wide impact on a major Department of Defense program with a $250M per year budget
• Effectively and efficiently communicated and coordinated long and short term program requirements, version updates, scheduled down times, and equipment upgrades across five separate site locations amongst the United States owned by separate branches of the Department of Defense
• Led determination of education and certification requirements, team selection, and hiring interviews for junior and senior software developers, system administrators, and cybersecurity analysts
• Provided mentoring and personnel management reviews for senior and junior software developers, system administrators, and cybersecurity analysts
• Created product requirements, design, and devsecops documentation
• Implemented multi-project devsecops CI/CD Pipeline with containers and virtual machines in GitLab
• Conducted source code reviews, resolved merge conflicts, and ensured quality code output
• Brought depreciated code up-to-date to include dependencies and improperly managed sources
• Assisted Agile project management routines using GitLab following three-week sprints with retrospectives
• Obtained DISA-STIG ATO certifications for critical applications

Contractor to Dark Wolf Solutions Remote - Full Time

Senior Full Stack Web Developer - Department of Defense (DoD) Contracts Sept 2022 – July 2023

Responsible for mentoring junior and senior developers, being an exemplary model of professionalism, providing recommendations and support for program managers and system architects

• Developed and integrated multiple React-Native-Windows modules for DoD and Healthcare applications
• Implemented FastAPI protocols and FHIR API implementations for enhanced backend performance
• Successfully managed small teams of up to 10 engineers to meet dynamic and aggressive schedules
• Personably mentored junior and senior developers in software principles, industry best practices, continuing education, and career advancement
• Conducted source code reviews, resolved merge conflicts, and ensured quality code output
• Managed DevOps and cloud services using AWS and CloudOne Cloud Services
• Implemented TLS and mTLS security for secure data transmission
• Led Agile project management routines using GitLab, JIRA, and Confluence, following two-week sprints and retrospectives
• Obtained DISA-STIG ATO certifications for critical applications

Death Star Development Honolulu, HI - Full Time

Senior Software Engineer - NASA and DoD Contracts July 2019 – Sept 2022

• Full Stack web development on Google Cloud platform (Compute Engine Server) which included IAM role allocation, SSO, and TLS implementation. Backend was node.js and frontend was react.js. Securely configured Apache2, nginx, and GitLab servers for use by all team members
• Directly saved the organization and parent organization $120,000 each year by developing scripts to identify inactive licenses and removing inactive personnel from licensing programs
• 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
• Troubleshot embedded system issues to include I^2C, 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 Chief Nuclear Power Electronics Technician August 2004 – August 2018
USS Tucson (SSN 770) Honolulu, HI
Project Management Director - Reactor Control Division March 2014 – August 2018
• Managed a division of personnel responsible for the maintenance, operation, and repairs of instrumentation and control equipment crucial to the safety and protection of a nuclear reactor
• 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

Personal Projects and Hobbies

Researcher, Robotics, Rockets, and PCBs Honolulu, HI
Participating and Training New Generations April 2018 – Present
• Local member of interested developers into blockchain technology (Honolulu BitDev)
• Developed Electronic Power Supply (EPS) for use by satellites and rovers in space
• NASA Student Launch Project Rookie of the Year Awardee
• Developed Onboard Computer System (OBCS) for use various applications
• i9 Sports Coach and Punahou Varsity Wrestling Volunteer Coach (2022-2023)
• HAM Radio General Operator (W6DSD)