Software engineering professional with 3+ years of experience in full-stack cyber security analysis and design. Most recent and relevant work has been designing and implementing cyber-resilient firmware and device drivers.

## SKILLS

**Languages:** Python, C, C++, Java, Ada **Web Apps:** NodeJS, Angular, React, Bootstrap

**Scripting:** JavaScript, Matlab, PowerShell, Bash **Environments:** Active Directory (Mac and Windows)

**Principles:** Machine Learning (TensorFlow), Covert └**Services:** ADFS, ADCS, WDS, S4B, SSL VPN

Channel Analysis,Cryptography (OpenSSL, SRP) SharePoint, Exchange, Cisco CME

## EXPERIENCE

### Software Engineer El Segundo, CA

*Raytheon ▪ Space and Airborne Systems* April 2019 – Present

* Part of a cross-departmental team that provides software assurance guidance and support for large-scale programs across business sectors.
  + Lead software architect for statefull image integrity and authentication during boot strap loading.
* Designed and implemented secure code functions to ensure data remains confidential in all states (at rest, in transit, in use) as part of an internal model-driven python-based tool.

### Security Analyst (SAII – SAIII) Santa Monica, CA

*The DigiTrust Group* October 2017 – April 2019

* Identified and classified key threats to client's network environments through log collection and aggregation to allow the support of new hardware devices contributing to increased client retention
  + Created PowerShell scripts to compile and standardize different log formats
  + Performed extensive DFIR research on network traffic patterns and user behavior
* Wrote JavaScript functions to automate event handling for Security Analysts, reducing click volume and increasing productivity (60%) and turnaround time on event processing

### Systems Administration Intern Los Angeles, CA

*American Computers and Engineers* June 2014 – October 2017

* Developed Active Directory Environment for Windows based systems
  + Hardened environment against standard attack vectors: Pass the hash, SMB exploits, DNS poisoning, privilege escalation via poor user access and segregation
* Deployed remote access and administration through DirectAccess and RADIUS server

## PROJECTS

### IOCSCAN.IO

*IP address and domain threat analysis*

* Custom created web application that analyzes IPs and domains to determine likelihood of malicious activity
* Designed custom heuristic algorithms to determine threat score and construct easy to interpret description

### UART Linux Device Driver

*UART driver implementation with Integrity-BIST for Data Communication*

* Based on Surendar & Gopalakrishnan 2017 paper describing a UART implementation with data integrity
* Driver implements a series of BIST to ensure correct functionality both on local hardware and on remote hardware running the driver. Additional integrity checks are implemented at the driver level

## EDUCATION

**University of California, Los Angeles**

**Henry Samueli School of Engineering** GPA: 3.1

*Bachelor of Science, Electrical Engineering* March 2019