

# Christopher Makarem

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Software engineering professional with 3+ years of experience in full-stack cyber security analysis and design. Most recent and relevant work has been as a cyber software team lead in charge of program-wide application security.

## SKILLS

**Languages:** Python, C, C++, Java, Ada

**Scripting:** JavaScript, Matlab, PowerShell, Bash

**Principles:** Machine Learning (TensorFlow), Covert  
Channel Analysis, Cryptography (OpenSSL, SRP)

**Web Apps:** NodeJS, Angular, React, Bootstrap

**Environments:** Active Directory (Mac and Windows)

**Services:** ADFS, ADCS, WDS, S4B, SSL VPN  
SharePoint, Exchange, Cisco CME

## EXPERIENCE

### Software Engineer

*Raytheon • Space and Airborne Systems*

El Segundo, CA

April 2019 – Present

- Cyber software lead of in charge of program-wide application security and software assurance
  - Have successfully reduced the defect density for newly introduced code by 87%
  - Responsible for working with customer representatives to ensure cyber-resiliency
- Product Manager for a python-based UI tool that provides explanations and suggests recommended code fixes for defects identified by various static code analysis tools
  - Program goal is to have developers who use this tool commit defect-free code without a reduction to their overall productivity rate and without increasing technical debt.

### Security Analyst (SAII – SAIII)

*The DigiTrust Group*

Santa Monica, CA

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
  - 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

*American Computers and Engineers*

Los Angeles, CA

June 2014 – October 2017

- Developed Active Directory Environment for Windows based systems
- 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 Surender & 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

*Bachelor of Science, Electrical Engineering*

GPA: 3.1

March 2019