

## PERSONAL BACKGROUND

Crypto & Software Engineer. Team player with a positive & professional attitude.

## AREAS OF EXPERTISE

### Cryptography / Software Engineering

*C / Python / Java / SQL*

- Proficient with embedded / resource-restricted environments, safe coding practices, object-oriented programming in C.
- Familiar with X.509 certificate structures, hardware accelerators, ASN.1, CMS, digest / cipher / MAC'ing algorithms, symmetric & asymmetric cryptography, import and export restrictions (ITAR), Intel Secure Device Onboarding, SSL.
- Proficient with scripting languages such as Bash, Powershell and Batch.
- Experienced in Agile software development, SCRUM, distributed systems, Jira.

## PROFESSIONAL EXPERIENCE

### Software Engineer

*Mocana Software - Sunnyvale, CA | February 2018 to Present*

- Responsible for developing / maintaining core-crypto code in Mocana's TrustPoint IoT Endpoint Security System.
- Develop build systems for crypto libraries using CMake, ensuring cross-platform compatibility for traditional operating systems as well as real-time operating systems.
- Ensure backwards-compatibility with open-source software such as OpenSSL and mbed TLS.
- Ensure all code is memory leak free.

### Notable Achievements

- Developed an "adapter" for Mocana's core-crypto API to make calls to a hardware accelerator to perform cryptographic functions.

### Webmaster / Web Developer

*Onyababy - Santa Cruz, CA | April 2014 to October 2016*

- Developed front end website and back end server infrastructure.
- Utilized multiple AWS modules.
- Developed systems for backup and restoration in case of failure.

## EDUCATIONAL HISTORY

### University of California, Santa Cruz

*Bachelor of Science in Computer Science*

- Graduated Class of 2017

### Cabrillo College

*Computer Science*

- President of Cabrillo College Computer Club
- Graduated Class of 2015

## FEATURED PROJECTS

### University of California, Santa Cruz

*Scaleable, Fault Tolerant Key-Value Store*

- Developed a distributed system using Docker and Django to respond to curl requests which would contain a payload and / or an instruction for the system.
- Utilized Chain Replication, broadcasts and heart beat counters to ensure replication and detect when a node failed.

*Caravan App*

- Developed an Android app to allow groups of people traveling together by car in a "caravan" to easily keep track of one another during their trip.
- Members of each car, and each car in the caravan were managed by DynamoDB.
- Utilized Google's Maps API to provide lists of nearby gas stations, restaurants, etc. to each car, which when selected would notify all other cars in the caravan of the pit stop.

PAYTON  
SCHWARZ

CRYPTO ENGINEER

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