sjpmatson@gmail.com 951.216.5813

Kirkland, WA

## **EXPERIENCE**

Security Engineer, 01/2016 - Current

Area 1 Security

- Refactored an underperforming REST API into a full stack object-oriented SPA using modern web technologies e.g., NodeJS, Webpack, React, Relay, Flask, GraphQL, VictoryJS, SQLAlchemy and Graphene.
- Reduced runtime of a network monitoring utility from 90 minutes to 15 minutes through implementing object-oriented design patterns, and database optimizations.
- Engineered customer solution for submitting malicious files missed by our anti-phishing platform. File metadata is extracted via Java and then stored into a Google Cloud PostgreSQL database while the file itself is stored in a Google Cloud Storage bucket.
- Redesigned and normalized a PostgreSQL relational database which stores over two million records that are being rotated hourly by a Python automation script.
- Wrote YARA signatures to expose malicious credential harvester web sites and malicious files.
- Developed an IP classification tool with Python which crawls domain hosts associated with a single IP address using reverse DNS and attempts to make a general classification of the IP based upon domain content, metadata, and proprietary machine learning analytics.
- Developed obfuscation tool with Python to sanitize client data from data files to allow Area 1
  marketing to share reports without breach of confidentiality.

Full Stack Web Developer, 06/2014 - 12/2015

San José State University

- Developed data-driven web applications using HTML, CSS, JS/jQuery, PHP, and Oracle DB to reduce costs related to third-party software and antiquated hard copy filing management systems.
- Generated technical documentation which outlined procedures used to standardize web content across multiple departmental websites as required to maintain SJSU WASC accreditation.

**SKILLS** 

Languages: Java, Python, C, C#, MIPS, OpenGL, JavaScript, HTML, XML, CSS, PHP,

GraphQL, SQL, Bash

Web: Sass, Webpack, NodeJS, NPM, React, Redux, Flask, Graphene, Babel, Relay

Modern, jQuery, BootStrap, Material-UI, VictoryJS, JSON, AJAX, WordPress, Yarn

Database: PostgreSQL, MySQL/MariaDB, BigQuery, OracleDB, MSSQL, SQLite,

phpMyAdmin, SQL Developer

Tools/Techniques: MVC, REST, ORM, Maven, macOS, Linux, Apache, vim, tmux, ssh, curl/wget,

IntelliJ, Eclipse, Git/GitHub, Unity3D, Virtualbox, Amazon Web Services, Google Cloud Platform, Jira, Blender, Docker, Portainer, YARA, Nessus, OpenVAS

## **EDUCATION**

Bachelor of Science in Computer Science, 12/2016

San José State University

- Engineered a facial detection web application using OpenCV and Ffmpeg to process user uploaded videos. Web technologies included React, Flask, and AWS while processing took place across 19 distributed servers.
- Using OpenGL, developed an obj parser, a procedural terrain generator, and an MS paint clone.
- Founding member and lab assistant of the SJSU VR lab, Lab 246.

Associates of Science in Computer Information Technology, 05/2014 Specialization in Web Development Fresno City College