

MARK ANDERSON

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EDUCATION

Bachelor of Science in Computer Science

Missouri University of Science & Technology

August 2015 - May 2020

SKILLS

Programming Languages

C++, Python, Java, C, HTML/CSS, Go, Bash, SQL

Industry Experience

Penetration Testing, Network Analysis, Software Engineering, Encryption
Security Orchestration and Automation, REST, Reverse Engineering

Tools

Metasploit, Kali Linux, Docker, Kubernetes, Swimlane,
NPView, Maven, Make/CMake, Valgrind, GDB, Ghidra

WORK EXPERIENCE

1898 & Co.

Cybersecurity Analyst

August 2020 - Present

Kansas City, MO

- Assistend in design of a high availability Security Orchestration and Automation Solution.
- Implemented custom SOAR integrations using Python to interface with various security APIs.
- Conducted cybersecurity assessments for Operational Technology and Information Technology environments.

CinemaCraft LLC

Senior Software Engineer

November 2020 - Februrary 2021

Remote

- Spearheaded development for assets that generated !REPLACEMEDADDY! unique views and over \$150,000 in profit.
- Developed in a large enterprise Java codebase utilizing various build automation tools for compilation.
- Managed multiple departments to package up assets and resources into a final deliverable on a weekly deadline.

Burns & McDonnell

Cybersecurity Intern

May 2019 - August 2020

Kansas City, MO

- Assisted in the building of networking infrastructure for a large scale Radiation Detection and Instant Alert System.
- Facilitated processes and procedures for vulnerability assessments and network analysis services.
- Utilized popular security toolkits and software such as OpenVas, Nessus, and Vulnerator.

National Informative Solutions Cooperative

Software Engineering Intern

May 2018 - August 2018

Lake Saint Louis, MO

- Automated and streamlined the majority of the Software Development team's quality assurance workflow.
- Developed quick turn around customer change requests in PL/SQL, Cobol, and Java applications.
- Managed an enterprise database of production records in Oracle Database and Oracle Cloud Infrastructure.

Parallel Computing Research Assistant

Researcher

May 2016 - August 2016

Rolla, MO

- Simulated parallel proceeses for a one-dimensional rule-based cellular automata non-qubit quantum adder
- Developed multithreaded algorithms in CUDA and C++ for parallel simulation.
- Setup an air gapped development environment and distributed machine images for secure development

VOLUNTEER EXPERIENCE

Microsoft TEALS

Teaching Assistant

August 2020 - Present

Remote

- Computer Science professional resource for teaching assistance in underprivileged high school districts.

PROJECT EXPERIENCE

Library Analytics System (LiSpy)

Tech Used: *TShark, Linux, REST, ExpressJS, Bash*

- Dispersed Raspberry Pi's listening for mobile probe requests to estimate a live population density map of the Missouri S&T library.
- Built and maintained linux image which allowed for plug and collect deployment of Raspberry Pi sensors.
- Probe request RSSI values were used to accurately triangulate location of requests inside the library within a 5 foot margin of error.

PDGA Calculator

Tech Used: *Beautiful Soup, SQLAlchemy, Python, Flask, sqlite*

- Built a full-stack web app that scrapes the PDGA website for player round ratings, builds a database, and allows users to edit and add round ratings to calculate a future rating.
- Implemented a polite rate limited webscraper with dynamic request intervals based on server response times to minimize scraping load to PDGA server.
- Optimized the scraping process by implementing hash checks against player numbers to see if additional scraping is required.

Challonge C++ API Bindings

Tech Used: *C++, cURL, JSON, cmake*

- Allowed the simple usage of the Challonge Tournament API using C++ for the Missouri S&T Smash Club to create custom bracket applications.
- Developed multiple wrapper classes for various API objects to streamline API usage and implement object oriented principles to the API.
- Added various utility functions that add additional functionality to expand on the base API.