Gary Frederick

Backend | Security Engineer

Dominican University (Make School)
Bachelor of Science in Computer Science - March 2020

University of California Berkeley
Associate of Arts in Computer Science - March 2018

https://garyf.dev
Github - imthaghost
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Experience

Paysplit | Backend Engineer
PAYSPLIT

April 2020 - Present

Responsibilities :

- Developed and designed API end-points.
- Developed SQL queries for database schema
- Contanerized API with Docker
- Annotated API end-points/routes with Swagger Docs
- Developed server routing logic with gRPC architecture in Go(Golang)
- Developed NFC payment splitting technology in C++/Golang
- Developed web components with Rust WASM
- Configured Linux server AWS(EC2) instance
- Wrote route and unit tests

Elite Cyber Group | Red Team Pentester (Remote)
ECG

Jan 2018 - Dec 2018

Responsibilities :

- Developed Python tools that automated penetration tests.
- Utilized tools such as Nmap, Wireshark to perform network analysis.
- Developed C++ implementation of TCP packet manipulator which included retransmission, out-of-order packets and missing data
- Wrote firewall rules with IPtables on Linux server for analysis
- Thoroughly documented exploit chain/proof of concept scenarios and explots.

Salesforce | Data Analyst Intern
SALESFORCE

June 2017 - Nov 2017

Responsibilities :

- Developed Python customer behavior classification algorithm.
- Developed Python algorithm that optimized system performance by 50%.
- Wrote unit tests

Projects

The following is a summary of my open source projects and learning. For details, please click the link to view the document

GOLANG

- goclone - Utilizes powerful Go routines to clone websites to your computer within seconds.
- gostream - Dockerized realtime streaming API written in Golang
- scdl - A CLI tool utilizing a go routine pool ensuring multiple thread safe and fast downloads from SoundCloud within seconds.
- Stock API - Stock data gRPC API built in Go. Various endpoints regarding stock data scraped directly from Yahoo Finance. Use this for a quick start regarding stock data
- multiplexer - Easily manage concurrent streams over a single TCP connection via HTTP2

C++

- nfc - This is a Go wrapper for Libnfc. Libnfc is a library written in C and C++ which allows userspace application access to NFC devices.

PYTHON

- blacklister - A IPv4/IPv6 blacklisting application via Radix Tree
- tweetGen - Tweets generated via Markov Chain.

Skills

Backend
Used technologies to develop microservices and web applications

- Golang (Go), Echo, Gin
- Rust, Rust WASM
- Python, Flask, Django
- C, C++

Dev Ops

- Docker
- AWS
- Kubernetes
- Caprover
- Heroku

Security
Perform network forensics and exploitation

- CCNA (Security) - Certified
- TCP/IP Protocol Suite
- Wireshark
- Nmap
- Metasploit
- BURP Suite
- HTTRACK

Database

- MYSQL
- PostgreSQL
- MongoDB
- Redis