

## SUMMARY

Experienced backend and system design professional with experience in designing, implementing, refactoring, and maintaining complex software systems and expertise in security, auto-testing, and DevOps.

Skilled in using various programming languages, frameworks, and Kubernetes. Love to learn and analyze low-level systems, languages, and frameworks.

## TECHNICAL SKILLS

- **Backend:** Python, C, Go, Rust
- **Services:** Linux, Kubernetes, MySQL/MariaDB, Redis, Samba
- **Cloud:** AWS, GCP
- Security, Bounty, Crawler, Automation, Porting, and others

## SIDE PROJECT

### **Golang/Markdown static blogger generator**

The [gitup](#) is my blogger generator and is used to generate my [blogger](#). It is based on Golang, generates the static files from markdown files, and builds the docker image as the static blogger site. The user can provide a customized template (bootstrap or other frameworks) to generate their blogger theme.

### **Brute-force tool**

The [knock](#) is the Golang-based brute-force tool, inspected by [gobuster](#), and provides a few protocols to enumerate the sensitive information from the target service. It can enumerate the external word lists and scan the target service with the goroutine.

## ACKNOWLEDGMENT

- [txOne - SQL Injection](#)
- [Synology SA-21:25 \(injection\)](#)

## EDUCATION

Computer Science, National Tsing Hua University - **M.S. 2010 - 2012**

Mathematics, National Taiwan University - **B.S. 2004 - 2008**

## EXPERIENCE

**TAIWAN: XRSPACE.**

**DEVOPS, PLATFORM DEVELOPMENT**

**– 2023/08 ~ NOW**

As a DevOps member, I help set up (re-design and re-implement) the overall CICD flow based on GitHub and AWS service.

- Help to re-design and re-implement the overall CICD flow.

**TAIWAN: GOFREIGHT**

**ENGINEER**

**– 2021/10 ~ 2023/05**

Refactor the legacy code to make the codebase more reliable and robust. Migrated legacy environment to EKS, solved multi-tenant issues, and reduced costs by 2/3. Solved crawler bot-detection issues and reduced proxy usage.

- migrate the environment to EKS, refine legacy code, and find potential bugs.
- analysis of the anti-bot detection, and provide the possible solution.
- upgrade the legacy code and package to the latest version.
- **tech stack:** Python, AWS, Kubernetes, celery, MySQL, Redis.

**TAIWAN: TREND MICRO**

**STAFF BACKEND ENGINEER**

**– 2021/05 ~ 2021/10**

Implemented internal auditing (ISO) management system, integrate with other systems and interact with RD to record and audit company-wise projects. Co-work with other teams and solve several issues at the same time.

- design and implement the internal ISO management system as the single-RD team.
- **tech stack:** Python, AWS, Kubernetes, flask, bootstrap, Jinja2.

**TAIWAN: TEACHES**

**SENIOR BACKEND ENGINEER**

**– 2020/02 – 2020/12**

Set up overall backend architecture, cloud-based environment, and code pipeline from zero to one. Integrate with 3rd-party cash-flow API and set up the prototype of behavior-based auto-testing. Be the only member of the backend and DevOps as backend team in the last 5 months.

As an SRE, set up the overall code pipeline, including the local development environment, version control (gate), and CICD pipeline (drone). Then migrate to GitHub and GitHub Action solution when the team grows up. Set up the cloud environment based on Google solution (GKE and others).

As a backend engineer, design and implement the RESTful APIs, DB schema, OAuth API integration, and testing via Cypress.io.

- setup the project from 0 to 1, including code architecture, cloud environment, code pipeline, and testing flow.

- integrate with 3rd-party API.
- **tech stack:** Python, flask, Kubernetes, GCP, MariaDB.

TAIWAN: MACHIX                      SENIOR WEB BACKEND ENGINEER                      – 2018/11 – 2019/12  
TAIWAN: MITHRIL                      SENIOR WEB BACKEND ENGINEER                      – 2018/07 – 2018/11

The MachiX is a cryptocurrency-based music IP exchange. I'm in charge of the backend development, including the backend RESTful API design and implementation, DB schema design, integration with 3rd-party cash-flow API, and others functionality that the company and/or customer need.

The VAULT, the produce I participate in Mithril, is a cryptocurrency wallet for the new cryptocurrency, called MITH, and supports exchange between cryptocurrency pairs. I'm in charge of the backend development, including the backend design and implementation, including RESTful API, exchange flow, and exchange-rate crawler. Also, I integrate with a 3rd-party cash-flow API, implement the airdrop flow for the new cryptocurrency MCX and the staking, and the policy for the user that can increase the mining when staking a certain amount in VAULT.

- the backend API design, refinement, and enhancement.
- **tech stack:** Python, flask, GCP, Kubernetes, MySQL.

TAIWAN: SYNOLOGY                      SENIOR SECURITY ANALYST                      – 2017/07 – 2018/07  
TAIWAN: SYNOLOGY                      SENIOR SOFTWARE ENGINEER                      – 2016/02 – 2017/07  
TAIWAN: SYNOLOGY                      SOFTWARE ENGINEER                      – 2012/08 – 2016/02

Synology is the most famous NAS company in the world. I'm in charge of the Samba porting, performance tuning, and cross-platform integration in the first 4 years. I've solved more than 2400 tickets for customers in 4 years and have been improving 70 times faster in special scenario cases. At the same time, I also design the prototype of automatically testing environment for the heterogeneity client (both on Windows/Linux/Mac) to reduce the regression issues.

In the next year, I reviewed and rewrote two non-usable projects and these projects will protect the benefit of Synology. The license system and protection system in Synology can be used as the foundation API, charge users, and avoid the software being abused and pirated.

In my last year in Synology, I change to be the security reviewer, focusing on the system architecture review and enhancing the system security. I handle the bounty program in Synology and process the incoming security report from researchers around the world. When the information is accepted, I decide on the reward, send the report to a related team member, and review the fix patch within three months. At the same time, I hold internal training classes in Synology and enhance security concepts for other teams.

- porting, performance running samba project to multiple platforms.
- code and architecture review to find the potential security issue.

- promote bounty programs and cooperate with external security researchers.
- **tech stack:** C, C++, samba, bounty program, behave.