Yu-Chen **Lin**

Software Engineer With Management Experience

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Summary

Software engineer experienced in building high scalability storage gateway which can on-premises access to virtually unlimited cloud storage. I am also experienced in building reliable and flexible virtualization infrastructure solutions. In my free time, I enjoy joining open source community to help others. In the past several years I've contributed to many famous open source projects, Including qemu, edk2, scrcpy, etc.

Work Experience

Synology

New Taipei City, Taiwan

Manager

Oct. 2022 - Present

- Involved in designing the global file locking system of Synology Hybrid Share to prevents simultaneous file modifications, eliminating data conflicts and enabling seamless collaboration without concerns about versioning or overwriting problems.
- Involved in designing the snapshot system of Synology Hybrid Share to protect from the threat of ransomware. The proposed snapshot system can take and restore snapshot in second level.
- Involved in designing the full end-to-end encryption log system to gain comprehensive oversight of Hybrid Share operations with detailed logs, enabling seamless audits, compliance reviews, and issue resolution for administrators.
- Involved in designing the C2 Storage Explorer file sharing mechanism to allow user to share files for reading and writing to another user with synology account in full end-to-end encryption scheme.
- Synology Hybrid Share performance optimization in latency and throughput. In small files, the upload speed has been doubled. Achieved several times speed improvement for larger files by increasing parallelizability.

Synology

New Taipei City, Taiwan

Senior Product Developer

Jan. 2020 - Oct. 2022

- Designed a secure login and access flow between Synology Hybrid Share client and Synology C2 Cloud service.
- Designed and implemented an overall service architecture and event pipelines of Synology Hybrid Share client that supports event dependency with flexibility and efficiency in C++.
- Designed and implemented data and metadata encryption schemes in Synology Hybrid Share to ensure nearly zero knowledge on the server-side which can protect the privacy of the user.

Synology

New Taipei City, Taiwan

Product Developer

Sep. 2016 - Jan. 2020

- Designed and implemented Synology Virtual DSM license system.
- Integrated Synology Virtual DSM into Synology Live Demo Site.
- Designed and implemented Virtual Machine Manager public API.
- By tweaking QEMU, we improved the efficiency of importing/exporting VMs in Synology Virtual Machine Manager. This resulted in a 48% increase in imports and a 38% increase in exports. It also decreased the need for extra space need.

Presentation

Synology Dev Insight

New Taipei City, Taiwan

Presenter for <Use Synology Hybrid Share to store Big-Data in NAS>

Oct. 2020

- Introduced the hybrid cloud architecture which is the modern way to handle the Big-Data with high scalability and how does Synology Hybrid Share expand the storage from NAS to Synology C2 cloud service.

Education

National Taiwan University

Taipei City, Taiwan

M.S. in DSP group, CMLab, Computer Science and Information Engineering

July. 2014 - June. 2016

National Chung Hsing University

Taichung City, Taiwan

B.S. in Applied Mathematics

Sep. 2010 - June. 2014