QINGYU CHEN

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EDUCATION

Carnegie Mellon University, Information Networking Institute — **Pittsburgh, PA**
Master of Science in Information Technology, Information Security — Sep 2018 – Jun 2020

Beijing University of Posts and Telecommunications (BUPT) — **Beijing, China**
Bachelor of Engineering in Network Engineering — Sep 2014 – Jun 2018

TECHNICAL SKILLS

Programming Languages	Proficient: Python, C, Java, Comfortable: Go, C++, JavaScript, x86 Assembly
Tools and Platforms	Git/Mercurial, Docker, Linux, AWS, Google Cloud Platform, Kubernetes, Buck

PROFESSIONAL EXPERIENCE

Facebook, Inc. | *Production Engineer* — Feb 2020 – Present

- Developed and owned Facebook's CDN platform OS EdgeOS which focuses on host integrity and data confidentiality
- Designed and developed remote host attestation procedure for all Facebook's CDN hosts
- Contributed to automation systems that run remediations across CDN fleet within maintenance windows

Facebook, Inc. | *Production Engineer Intern* — May 2019 – Aug 2019

- Built a Python 3 CLI which maintains metadata and unifies build process for third-party libraries at company scale
- Designed and shipped a third-party library patch management mechanism that fits both scale and existing source control
- Contributed a new feature in Java to open source build tool Buck for third-party metadata maintenance purpose

VMware, Inc. | *Quality Engineer Intern* — Sep 2017 – Jan 2018

- Maintained the daily automation test environment and scripts that are compatible to all common browsers
- Fixed issues of existing automation test system VAS-Apollo, added multiple new features to the system

Lanzhong Tech (Beijing) Co., Ltd. | *Full-Stack Engineer Intern (Remote)* — Mar 2017 – Jan 2018

- Led to maintain the Cloudjudge system, which is a Python 2.7 written auto grading system built atop runC
- Developed new features for jiuzhang.com and lintcode.com, both built with the Django – React.js tech stack

National Key Laboratory of Networking and Switching Technology | *Research Assistant* — Dec 2016 – Aug 2017

- Developed an SDN prototype that supports random hierarchical VRF via Open vSwitch and Ryu SDN framework
- Architected a real network using 13 soft switches, deployed the prototype and tested performance and security
- Presented at the 4th ACM CCS Moving Target Defense (MTD) Workshop as the second author in 2017

SELECTED PROJECTS

Liso: HTTP/1.1 Web Server | *Course Project* — Mar 2019 – Apr 2019

- Built from scratch in C a concurrent web server that supports basic HTTP/1.1 methods, strictly complying to RFC 2616
- Created CGI interface as standardized in RFC 3875 and added TLS encryption using the OpenSSL library to support HTTPS

Cached File System: AFS-like File System with Caching | *Course Project* — Mar 2019 – Apr 2019

- Programmed in C a Client/Server RPC library emulating standard C library file system calls (*open, read/write, close, etc.*)
- Developed in Java a remote file system cache mechanism with open-close session semantics and LRU eviction policy

Headr: Static Blog Provider Based on Microservice Architecture | *Graduation Project* — Dec 2017 – May 2018

- Implemented microservices with Go-kit and deployed on GCP Kubernetes cloud with Wercker automation pipeline

MyDocker: Learning Docker by Making One | *Personal project* — Oct 2017 – Dec 2017

- Developed in Go a container runtime engine prototype implementing basic container management capabilities and network

HONORS

Publications

- Wang, Y., Chen, Q., Yi, J., & Guo, J. (2017, October). U-tri: unlinkability through random identifier for SDN network. In Proceedings of the 2017 Workshop on Moving Target Defense (pp. 3-15). ACM.

Awards

- Annual Scholarship at BUPT for three consecutive years, 2015-2017
- Best Data Engineering Award in Big Data Contest by Alibaba University Technology Association, 2016