

Yijie Ma

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SKILLS

C/C++, Python, Rust, Operating System, Networking, Distributed System, Storage System, Cross-platform (Linux/macOS/Windows) software development

WORK EXPERIENCE

GOOGLE

APRIL 2017 - PRESENT

Software Engineer

gRPC Open Source Remote Procedure Call Framework

- Designed and built the cross-platform asynchronous [DNS resolver](#).
- Designed and built the [Metrics framework](#) with C++ template technique and the [OpenTelemetry plugin](#).
- Co-authored the A79: Non-per-call Metrics Architecture [gRFC](#).
- Fixed numerous crashes, security issues and made performance improvements for millions of Open Source users.

Google Drive Desktop application

- Built rsync-style differential compression and Gzip compression stack for content upload.
- Built USB device backup stack which backs up millions of users' files daily.
- Built Cross-platform Preference system for users and admins to configure the application.
- Made 100+ crash fixes, customer issue fixes and performance improvements.

Stadia Cloud Gaming Service

- Built a Cgroup library for setting up Cgroup configurations during container setup on VMs.
- Increased click-to-play speed by 75% by optimizing the container setup.
- Built a custom shell to replace explorer.exe for gamer surface lockdown on Windows.

NETAPP

AUGUST 2015 - MARCH 2017

Member of Technical Staff

Worked on the [AltaVault](#) Cloud-Integrated Storage device. Built a filesystem software and used RocksDB for cataloging users' snapshot data. Built full or incremental backup and restore functionalities.

EDUCATION

CARNEGIE MELLON UNIVERSITY

SEP 2013 - MAY 2015

Master of Science in Electrical and Computer Engineering

Coursework: Introduction to Computer System, Embedded Realtime System, Advanced Storage System, Internet Service, Cloud Computing, Distributed System

DONGHUA UNIVERSITY

SEP 2009 - MAY 2013

Bachelor of Engineering in Electrical Engineering and Automation

Awards: 2012 IEEE-standard Micromouse competition national award issued by China Computer Federation (CCF)