Jianxin Qiu
jianxin.qiu@outlook.com · github.com/imtsuki

Education

University of Toronto Toronto, Canada
Master of Engineering in Computer Engineering 2022 – 2023

Beijing University of Posts and Telecommunications Beijing, China
Bachelor of Engineering in Computer Science 2017 – 2021

Employment History

Software Engineer, TikTok
2023 – 2026

Launched the Model Context Protocol (MCP) gateway, where teams can register REST/gRPC APIs as MCP tools, host third-party servers, or implement custom handlers programmatically, abstracting away protocol complexity, authentication, and observability concerns. Scaled the platform to host 9,000+ MCP servers and process 2B+ requests daily, serving as the foundational infrastructure for AI tool integration across all engineering teams.

Engineered the AI Sandbox platform on the serverless infrastructure to enable on-demand, ephemeral environments for AI agents with configurable lifetimes and per-instance routing. Built a runtime daemon handling remote command execution, process lifecycle management, port forwarding, and browser automation. Scaled to serve 40,000+ cores daily.

Maintained the serverless platform, including its control plane, build system, and data plane components. Unified on-prem and cloud control planes into a single codebase and migrated metadata for 4,000+ functions, reducing maintenance overhead and accelerating new feature delivery. Engineered CronJob-on-Serverless to enable existing batch workloads to run serverlessly, solving challenges around custom container images, distributed scheduling across multiple data centers, and seamless integration with existing Kubernetes workloads.

Past Internships

ByteDance · Worked on Lark Messenger's cross-platform Rust library. Introduced new product features to the calendar module, improved codebase modularity and binary footprint through systematic assembly-level profiling and code refactoring.

Alibaba Cloud · Worked on the ClickHouse database team. Integrated ClickHouse and Apache Flink by developing a high-throughput database connector, achieved over 5x higher throughput over the default JDBC connector.

SmartX · Worked on the distributed block storage team. Enhanced the long task execution module, implemented features like storage backup parallelization, QoS bandwidth limiting, and task status management.

Skills

- C, C++, Rust, Go, Python, Compiler, Linux Kernel, Serverless, Model Context Protocol (MCP), etc.
- Open-source contributions: contributed to `@rust-lang`, `@rust-analyzer`, `@rust-osdev`, etc.