Eric (Chen-Chien) Chang

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DESCRIPTION

· **Apache Gravitino Committer** and **Apache Kafka Contributor** (Apache Foundation Top-Level Projects)
· Experienced in **Performance Tuning** (SQL, Backend Service)
· **Fast Learner**, can pick up numerous toolings and use it to solve real world problems
· Tech Stack: **Go**, **Java**, **Typescript**, **Python**, **PostgreSQL**, **Kafka**, **Docker**, **Kubernetes**

EXPERIENCE

Lawsnote   January 2024 - December 2024
Backend Software Engineer. Tech Stack: Typescript, NodeJS, Docker, MongoDB, Prometheus, Grafana
                                                                 Taipei, Taiwan
· Reduced first byte latency from **100s** to **5s** (**20x** faster) on CPU-intensive computation results with **HTTP Streaming**
· Built data integrity monitoring system using **MinIO events** and **Elasticsearch** to proactively identify **data loss**, improving system reliability.
· Identified and fixed **NAPI-rs package** problem with **Pyroscope NodeJS profiler**
· Built **LLM service** to parse Law-related text with ambiguous rules

Mediatek (Contract)   February 2022 - March 2023
Backend Software Engineer. Tech Stack: Go, Linux, Docker, PostgreSQL   *Hsinchu, Taiwan*
· Maintained a data warehouse for Low-Power Simulation and Benchmarking
· SQL Query Optimization: Reduced page-loading time of WebUI from **60s** to **1s** (**60x** faster) with **Index-Only Scan**: Blog Post
· Used Continuous Profiling tool: **Pyroscope eBPF Spy** to find out performance bottleneck
· Reduced time-consuming simulation job duration from **2hr** to **1 min** by leveraging PostgreSQL Bulk Import feature (bottleneck discovered by **Pyroscope**)
· Designed message queue based microservice architecture to scale up time-consuming tasks
· Reduced **50%** memory consumption by using Golang **sync.Pool**: Blog Post
· Designed a integration test fixture factory to increase robustness of our tests
· Managed 5-node distributed service with tools like **Prometheus**, **Grafana**, **OpenTelemetry**, **Pyroscope**
· Shared knowledge with team members in a study group

National Chen-Kung University   September 2017 - July 2019
Research Assistant. Tech Stack: Python, C   *Tainan, Taiwan*
· FDM 3D Printing Related Research (**Klipper Firmware**, 3D Printing Filament Research)
· Experienced with **MicroPython**, **Arduino**

OPENSOURCE CONTRIBUTION

Apache Gravitino: A high-performance, geo-distributed and federated metadata lake (Apache Software Foundation) 2024 - Present
Apache Gravitino Committer, Tech Stack: **Java, Python, Docker, Kubernetes**

· Implemented container suite management for PostgreSQL and MySQL integration tests, significantly reducing resource consumption and improving test execution speed
· Developed robust Docker image build workflows from source, reduced Hive Docker image size by **420MB**, ensuring reliable and reproducible builds
· Ported partition-related interfaces from Java to Python client, enhanced CLI with multiple output formats, broadening platform accessibility
· Optimized backend storage performance through batch listing implementation in RoleMetaService, reducing SQL query overhead and improving system scalability

Apache Kafka: A distributed streaming platform 2024 - Present
Apache Kafka Contributor, Tech Stack: **Java, JVM**

· Identified and fixed **JVM container awareness** problem in producer-performance test **IntelliJ Profiler**

redis/rueidis: A fast Golang Redis client that does auto pipelining and supports client side caching (1.9k stars) Oct 2023 - Present
link to pull request, Tech Stack: **Go, Redis**

· Implemented go-redis API Adapter

EDUCATION

National Taiwan Ocean University July 2013 - April 2017 (Drop Out)
Electrical Engineering *Taiwan*

· Acquired self-learning ability to learn anything and helped me to get my first job.
· Made me an open-minded person, willing to explore any interesting things.
· Made me a person who can understand the question behind the question (QBQ), and make the right decision in system design.