

RUSTIN LIU

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🎓 EDUCATION

Software Engineering Bachelor's Degree

Sep 2015 – June 2019

- Chongqing University of Technology

⚙️ SKILLS

- **Programming Languages:** Experienced in Go/Rust/JavaScript, **multilingual** (can adapt to any language)
- **Development Tools:** familiar with Linux-based programming, have experience with tools like Git, GitHub, Docker, Jenkins, Github Actions and Jira, etc.
- **Languages:** **English** (Can read, write and speak fluently), **Chinese** (Native speaker)

👤 WORK EXPERIENCE

PingCAP Inc. - Database - Database R&D

July 2021 – Present

Transferred from the community department to the data platform department and started to focus on the development of data synchronization tools TiCDC.

Responsibilities:

- Designed, implemented and maintained core modules, mainly focusing on Sink and Sorter modules.
- Provided day-to-day maintenance of the project: Tracked issues and resolved them. Reviewed code and was on-call to resolve customer issues.
- Optimized project code structure and CI/CD script. Tracked flaky test to improve engineering efficiency.

Accomplishments:

- Changed push mode to pull mode to optimize memory management and data synchronization process, greatly improving OOM issues and throughput.
- Modified the Sink module from synchronous to asynchronous mode to optimize code performance and improve throughput by 30%.
- Added multi-topic feature for Kafka Sink, which greatly reduced the cost of operation and maintenance.
- Tracked and fixed a large number of flaky tests, greatly improving development efficiency. Optimized test scripts to reduce CI time consumption from 40 minutes to 20 minutes.
- Refactored all of TiCDC's CLI code to standardize the way commands are added and written, which greatly improved maintainability.

PingCAP Inc. - Database - Front-end/Back-end R&D

Aug 2020 – July 2021

Joined the community department to develop TiChi to support community collaboration based on the Kubernetes Community Prow project.

Responsibilities:

- Designed and built the entire project. Built collaborative robots on GKE using Prow.
- Sorted out and optimized the community collaboration process to provide a better collaboration experience for open source contributors.

Accomplishments:

- Completed TiChi, which has become the company's CI/CD infrastructure, on time.
- Fixed bugs and added features for Prow, submitted 39 PRs.
- Added multiple language documents for collaboration process and TiChi.

Morningstar, Inc. - Financial Services - Front-end/Back-end R&D June 2019 – July 2020

First job after graduation, responsible for writing and maintaining data presentation components, left after the company decided to start closing its China R&D center.

Responsibilities:

- Developed front and back-end of the data presentation component in Java and Vue.
- Optimized the release scripts for components and documents to improve engineering efficiency.
- Maintained and developed front-end infrastructure, driving front-end engineering.

Accomplishments:

- Independently developed components that are already online, with good stability and performance.
- Implemented a front-end tracking system that uses HeapIO to track user information, with an extensible interface to seamlessly switch to Google Analytics.
- Wrote automated Jenkins scripts for component and document releases, optimizing the release process from a manual 4-hour process to a fully automated 30-minute process.

Cargo & Rust - Active Contributor

219+ commits

The Rust package manager. Cargo downloads your Rust package's dependencies, compiles your packages, makes distributable packages.

- Improved various error prompts for Cargo commands and the Rust compiler to make errors to effective and clear.
- Added the `-crate-type` function and added related documentation for Cargo.
- Added support for automatic inheritance of the `[workspace.package]` fields for the cargo new and cargo init commands.
- Added `OR_PATTERNS_BACK_COMPAT` lint to help users migrate to the new `orpatterns` syntax.

Rustup - Active Maintainer

110+ commits

Rustup is an installer for the systems programming language Rust.

- Different modes of self-update were supported for Rustup to provide a better experience.
- Improved Rustup testing and was responsible for releasing Rustup.
- Responsible for the daily maintenance of the project, including code review, dependency upgrade, security vulnerability fixing, etc.

Phlare - Active Contributor

28+ commits

Horizontally-scalable, highly-available, multi-tenant continuous profiling aggregation system.

- Refactored all command line flags and added flags descriptions and tests
- Added a management page to show the status of each component
- Refactored all APIs to make them easier to write and test

ant-design - Previous Maintainer

24+ commits

An enterprise-class UI design language and React UI library.

- Refactored Input component and added cleanup button
- Designed and added Skeleton component
- Wrote contribution guidelines to guide others to participate in community contributions.