

# 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:

- Responsible for the design, implementation and maintenance of core modules, mainly focusing on Sink and Sorter modules.
- Responsible for the day-to-day maintenance of the project: Issues tracking and resolution, code review and on-call to resolve customer issues.
- Responsible for project code structure optimization, flaky test tracking, and CI/CD script optimization 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%.
- Multi-Topic feature is supported for Kafka Sink, which greatly reduces the cost of multi-Topic task 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.
- All of TiCDC's CLI code was refactored to standardize the way commands are added and written, greatly improving maintainability.

### PingCAP Inc. - Database - Front-end and 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:

- Responsible for designing and building the entire project, building collaborative robots on GKE using Prow.
- Responsible for sorting out and optimizing the community collaboration process to provide a better collaboration experience for open source contributors.

#### Accomplishments:

- TiChi has become the company's CI/CD infrastructure, having completed the project design and development on time.
- Fixed bugs and added features for Prow, submitted 39 PRs.
- Well documented for TiChi, clarifying the collaboration process and providing a better collaborative experience for open source contributors.

### Morningstar, Inc. - Financial Services - Front-end and 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:

- Responsible for the front and back-end development of the data presentation component, developed in Java and Vue.
- Responsible for the optimization of component and document release scripts to improve engineering efficiency.
- Responsible for front-end infrastructure maintenance and development, trying and driving front-end engineering.

## Accomplishments:

- Several independently developed components are already online and in use, 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.
- Optimized the company's front-end scaffolding to support TypeScript, added prettier to unify code formatting, and unify ESLint rules.

## OPEN SOURCE PROJECTS

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### 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