Yu Wei Wu

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Brief

A software developer interested in system programming, love to explore different architecture platforms, especially RISC-V. Proficient in Rust and C, but comfortable with most general programming languages.

Education

National Chiao Tung University, Taiwan   08/2012 – 07/2016

Bachelor: Computer Science

Work Experience

BiiLabs Inc., Taiwan   11/2018 – 08/2019

(Cloud Services)   Software Engineer

- Improved computation bottleneck significantly with various approach like SSE/AVX SIMD acceleration and building embedded FPGA cluster with rabbitMQ.
- Developed microservices to accelerate accessing distributed system. Deployed and Monitored them with tools like Ansible and Grafana.
- Built the CI/CD environments with Buildkite. Maintained both cloud instances and local servers with Nginx and HAProxy. Learned a lot about Linux programming and its codebase.

IOTA Foundation, German Berlin   08/2019 – 12/2020

(Distributed Storage Systems)   Senior Software Engineer - Protocol Team

- Developed the protocol of main system service. Built several essential components around the distributed system like async actor-based runtime, MPMC channel, and a fully hand-made protocol implementation to communicate with Cassandra / ScyllaDB.
- Mentored and guided other developers in the team become more familiar with various new tools and languages.
- Learned a lot about distributed system, working remotely, and databases.

Personal Projects

Honga   https://github.com/wusyong/honga

A 64-bit RISC-V emulator that can run Unix-like OSes like xv6.

Tauri   https://github.com/tauri-apps/tauri

A framework that builds smaller, faster, and more secure desktop applications with a web frontend.

- Compatibile with any front-end framework which means developers don't have to change their stack.
- Supports cross-platform compilation to bundle binaries for major desktop platforms.
- Tauri application can have extreme small binary size and memory usage.

Wry   https://github.com/tauri-apps/wry

Cross-platfrom WebView rendering library that supports all major desktop platforms like Windows, macOS, and Linux.

Smol-potat   https://github.com/wusyong/smol-potat

Proc macro for smol async runtime. It provides an ergonomic way to fine tune the runtime system.

TRPL (Traditional Chinese Version)   https://github.com/rust-tw/book-tw

Traditional Chinese version of The Rust Programming Language, the official book on Rust.

Skills

- **Program Language**: **multilingual** (not limited to any specific language), especially experienced in Rust C, comfortable with C++ Haskell C# Objective-C Python Swift Racket (in random order).
- **Rust**: **4 years** of experience, have projects collected in Awesome Rust, familiar with Cargo and Bazel, understand procedural macros, Rust asynchronous runtimes, and unsafe usage, contributed to Rust compiler and its tools from time to time.
- **System Programming**: **3 years** of experience, familiar with Linux programming interface and also other Unix-like OSes. Understand general architecutre of the operating system and know how to write one from scratch.
- **Profiling**: familiar with various tools such as perf, Flame Graph, Valgrind, and many kinds of sanitizers. Understand benchmarking, tuning, and producing useful graphic representations with gnuplot.

- **Database**: familiar with various databases such as Rocksdb, Cassandra, mariaDB, SQLite, PostgreSQL, etc. Understand concepts between different SQL/NoSQL databases. Can build protocol implementations without any help of ORM.
- **Development Tool**: can adapt to any editors / operating systems, usually use JetBrains IDEs and Vim under Arch Linux, have experience with team collaboration tools like GitLab, Jira, GitHub, ClickUp, Hackmd, Slack, Zenhub.

Miscellaneous

- Languages: English - fluent, Chinese - native, Taiwanese - native
- Member of Tauri, Webview, rust-tw and more, contributed to rust, async-std, veloren, tauri, riscv-opcodes, grcov, windows-rs, gtk-rs, winit, smol, amethyst and other projects
- Get one-page version of the resume here: https://tinyurl.com/5bu836cy
- Get complete version of the resume here: https://tinyurl.com/ffw74czc