Roife

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Education

Nanjing University (NJU)   2023/09 - 2026/06 (expected)
Master of Computer Science and Technology   Nanjing, China

- Member of Pascal Research Group. Major in PL and program analysis.
- Teaching Assistant: *Principles and Techniques of Compilers* (Spring 2024)

Beihang University (BUAA)   2019/09 - 2023/06
Bachelor of Computer Science and Technology   Beijing, China

- GPA 3.84/4.00. National Scholarship 2022 (Top 0.2% national-wide). Outstanding Graduate of BUAA.
- Won the First Price of NSCSCC Compilation System Design Competition 2021, ranking 2nd.
- Teaching Assistant: *Programming in Practice* (Fall 2020), *Object-oriented Design and Construction* (Fall 2021, Spring 2022).

Projects

Ayame   ⌗ No-SF-Work/ayame
Team, implemented register allocation and codegen related optimizations

- A SSA-based compiler for a subset of C to LLVM IR/ARMv7, with optimizations such as GVN, register allocation etc.
- Project for NSCSCC Compilation System Design Competition, outperforming `clang -O3` on 1/3 testcase.

Hanggai   ⌗ Caniformia
Team, participated in iOS app and web backend development

- An app for the course *Introduction to Aeronautics and Astronautics* in BUAA, supporting the web and iOS.

Open-source contributions

rust-lang/rust-analyzer, rust-lang/rust-clippy, yuin/goldmark, doomemacs/doomemacs and more on GitHub

Skills

- **Programming Languages**: Not limited to specific language, especially experienced in C, C++, Java, Rust, Swift, Python, Javascript, Verilog (SV).
- **PL Theory**: Familiar with type systems, formal semantics and formal verification.
- **Program Analysis**: Proficient in static analysis, especially familiar program analysis on Java.
- **Compiler**: Proficient in compilation optimizations, parsers and interpreters; knowledgeable about LLVM.
- **IDE Tooling**: Familiar with LSP-based IDE development, especially familiar with rust-analyzer.
- **Web / Mobile**: Familiar with Vue, SwiftUI, Rails, Docker, PostgreSQL, Redis.
- **Developing Environment**: Proficient in Emacs; usually works in macOS and Linux.

Misc

- **Languages**: Chinese (native), English (fluent)