YUNBO NI

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EDUCATION

B.E. in Software Engineering, Nanjing University   Sep, 2021 - Present
GPA: 4.53/5.00, **Rank:** 21/257 (8.17%)

PUBLICATIONS

Towards Fixing Panic Bugs for Real-world Rust Programs
<u>Yunbo Ni</u>, Yang Feng, Zixi Liu, Runtao Chen, Baowen Xu.   Apr, 2024
ISSTA'24 Round2 Under Review
Contributions:

- Independently implemented the APR tool, consisting of **5K+ lines of Rust code**.
- Co-designed and conducted **a significant portion** of the experiments.
- Demonstrated practical impact by applying the APR tool to real-world Rust crates, effectively resolving **4 critical panics**. These enhancements addressed arithmetic overflow, error handling, and index out of bounds issues. Noteworthy contributions include improvements reflected in PR-283, PR-284, and PR-285, **all** of which have been **approved by the maintainer and merged into codebases**.

What Matters Besides Borrow Checking? Toward Understanding Bugs in Rust Compiler   Mar, 2024
Zixi Liu, Yang Feng, <u>Yunbo Ni</u>, Shaohua Li, Xizhe Yin, Qingkai Shi, Baowen Xu, Zhendong Su.
OOPSLA'24 Round2 Under Review
Contributions:

- Collected **10K+ data** from the Rust development community using a tool developed by myself, which formed the basis of this empirical study.
- Conducted a manual review and analysis, in collaboration with others, on **2547 Rust bugs**.
- Developed a custom mutator for Rust programs, which was instrumental in uncovering **3 significant bugs** in the official Rust community. These findings have been documented and are accessible via Issue-117710 and Issue-117844, contributing valuable insights to the Rust development community.

PROJECTS

Apache Shardingsphere [Contributions] [Interview]   Jul, 2023
As a contributor to Apache ShardingSphere - an esteemed Apache top-level project with **over 19K stars**, I played a pivotal role in enhancing the SQLNodeConverterEngine to encompass a broader spectrum of MySQL, PostgreSQL, and OpenGauss SQL statements. Throughout this endeavor, I adeptly tackled **31 exceptional cases** spanning **3 SQL dialects**, resulting in the successful merging of **18 pull requests.**

CompilerBagel [Code]   Aug, 2023
As a participant in the Huawei BiSheng Cup 2023, I was responsible for building a compiler for a subset of the C language from scratch, with a focus on the compiler backend, tailored for **the RISC-V instruction set**. Our team achieved **a high score of 98.8** in the National Competition and was awarded **the National Excellence Award.**

HONORS

National Scholarship, Chinese Ministry of Education, 2022   Nanjing, China
BiSheng Cup National Excellence Award, CERACU, 2023   Guangzhou, China
Huawei Smart Base Scholarship, Huawei, 2024   Nanjing, China

LEADERSHIP

Captain   Debate Team of Software Institute, Nanjing University   Sep, 2021 - Sep, 2022
Leader   Zheng Gang Future Talent Leadership Camp   Mar, 2022 - Jun, 2022