

# Cheng Ding

Ph.D. Student

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## Research Interests

Software Testing, Machine Learning, Database, Programming Languages

## Education

2024–present **Ph.D.**, *University of Texas at Austin*

Advisor: Prof. Milos Gligoric

2020–2024 **B.Eng**, *University of Science and Technology of China*

## Publications

[1] **TypeJinja: Static Type Checking of Ninja Templates at dbt Labs**

- Accepted by ICSE SEIP 2026. Page-to-appear.
- A static type checker for Ninja language, integrated into dbt-fusion workflow.

## Professional Experience

May 2025– **Software Engineer Intern**, *dbt Labs*, Remote from Austin, TX

Aug 2025 Worked on the static type checking system for **MiniJinja**, a Rust-based templating engine powering dbt.

- Designed a type system and checking framework for Ninja templates embedded in dbt pipelines.
- Integrated the type checking system into the dbt-fusion CLI to ensure early error detection.

## Research Experience

2024–present **Graduate Research Assistant**, *University of Texas at Austin*, Austin, TX

Working on Software Testing and Database related topics.

2023–2024 **Research Assistant**, *University of Illinois at Urbana-Champaign*, Champaign, IL

Developed a runtime verification framework for the Go language, targeting cloud infrastructures like Kubernetes.

- Designed a practical tool supporting multiple specification languages (LTL, FSM, ERE).
- Implemented 5 optimized parametric monitoring algorithms enabling online verification with low overhead.
- Detected multiple bugs in widely-used open-source Go projects.

## Honors and Awards

2024 Graduate School Fellowship, University of Texas at Austin

2022 Outstanding Student Fellowship, University of Science and Technology of China

## Professional Service

CGO 2026 Artifact evaluation committee member, International Symposium on Code Generation and Optimization

## Skills

Languages C, C++, Python, Java, Go, Rust, SQL, Bash, MiniJinja

Tools PyTorch, Pandas, Ray, MySQL, Kubernetes, Docker, Git, Linux, GDB, LLVM, Z3, NuSMV, Coq, AspectJ