# Cheng Ding

*Ph.D. Student*

✉ cheng.ding@utexas.edu
🌐 irisesd.github.io
⬛ irisesd

## Research Interests

Software Testing and Verification, Machine Learning

## Education

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|---|---|
| 2024–present | **Ph.D.**, *University of Texas at Austin* <br> Advisor: Prof. Milos Gligoric |
| 2020–2024 | **B.Eng**, *University of Science and Technology of China* |

## Experience

**2024-present**   **Graduate Research Assistant**, *University of Texas at Austin*, Austin, TX
Working on Software Testing related topics.

**2023–2024**   **Research Assistant**, *University of Illinois at Urbana-Champaign*, Champaign, IL
Building a runtime verification tool for Go language.
Detailed achievements:
○ Aim to perform runtime verification of infrastructures of cloud systems like Kubernetes.
○ Designing and implementing a practical Runtime Verification tool for Go which:
  - reports violations before it actually happens;
  - monitors multiple specifications simultaneously;
  - support multiple specification languages (LTL FSM, ERE, etc).
○ Implemented 5 parametric monitoring algorithms:
  - achieve online monitoring which can report the violation promptly;
  - reduce runtime overhead using the enable sets optimization.
○ Found several bugs in widely-used open-source Go projects.

## Skills

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

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

## Honors and Awards

2024   Graduate School Fellowship, University of Texas at Austin

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