

Qian Cheng

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🌐 [Qian-Cheng-nju](https://github.com/Qian-Cheng-nju)

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Education

Nanjing University

Ph.D. in Computer Science and Technology

Nanjing, China

Sep 2024 – Present

- Advisor: Prof. Yu Huang
- Research Focus: Formal Methods for Real-World Systems

Nanjing University

B.S. in Computer Science and Technology

Nanjing, China

Sep 2020 – Jun 2024

Publications

1. **Qian Cheng**, Ruize Tang, Emilie Ma, Finn Hackett, Peiyang He, Yiming Su, Ivan Beschastnikh, Yu Huang, Xiaoxing Ma, Tianyin Xu. “SysMoBench: Evaluating AI on Formally Modeling Complex Real-World Systems.” *ICLR 2026*. [arXiv]
2. Ruize Tang, Yu Huang, Lingzhi Ouyang, **Qian Cheng**, Yuqi Zhang, Xiaoxing Ma. “Research Progress on Distributed System Model Checking.” *Journal of Software*.

Awards & Honors

- **TLAi+ Challenge Winner** 2025
TLA+ Foundation AI Formal Specification Challenge (Project: Specula)
- **National First Prize**, The 18th “Challenge Cup” National Undergraduate Curricular Academic Science and Technology Contest 2023
Project: Fluid – Cloud-Native Data Orchestration and Acceleration (CNCF Incubating Project)

Projects

- **SysMoBench** (Lead Developer) github.com/specula-org/SysMoBench
Benchmark and artifacts for evaluating AI on formally modeling complex real-world systems (ICLR 2026)
- **Specula** (Lead Developer) github.com/specula-org/Specula
Specification-focused tooling for monitoring and verifying real-world distributed systems
- **System Intelligence Benchmark** (Contributor) [GitHub]
Benchmark for evaluating AI capabilities on system intelligence tasks
- **Fluid** (Contributor) fluid-cloudnative.github.io
CNCF Incubating project for elastic data abstraction and acceleration on Kubernetes

Presentations

- “Specula: Specification-Focused Monitoring for Real-World Systems” [Video Recording]
TLA+ Community Meeting Nov 2025