

Haoyu Feng

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BIO

I am a fourth-year undergraduate majoring in Information and Computational Sciences at the School of Electronics Engineering and Computer Science, Peking University. I will soon become a Ph.D. student as a member of Programming Languages Lab at Peking University, where I will be advised by Prof. Xin Zhang. My current research interests focus on program analysis. Recently, I have been working on methods that combine probability with program analysis using Bayesian networks. Moreover, I am broadly interested in programming languages and software engineering. I aim to build efficient, safe, and user-friendly abstraction at the programming language level for programmers.

EDUCATION

- **Peking University** Sept. 2021 - Present
B.S. in Information and Computational Sciences, advised by Prof. Xin Zhang
◦ GPA: 3.823/4 (rank 17/134) Beijing, China

RESEARCH EXPERIENCE

- **Peking University** May 2024 - Present
Research assistant, supervised by Prof. Xin Zhang
◦ Topic: Fast loopy belief propagation for program analysis with GPU acceleration.
◦ Designed and implemented a GPU-accelerated framework of loopy belief propagation optimized for program analysis. Beijing, China
- **Peking University** Jan. 2024 - Apr. 2024
Research assistant, supervised by Prof. Xin Jin
◦ Topic: Efficient fault-tolerant stateful serverless computing. Beijing, China
◦ Conducted experiments including read and write primitives under various request rates, end-to-end performance in the presence of function failures and retries, and end-to-end performance when overlapping logging with program execution.

TEACHING EXPERIENCE

- **Teaching assistant** - Introduction to Computer Systems, Peking University Sept. 2023 - Jan. 2024

PUBLICATIONS

- [1] Sheng Qi, **Haoyu Feng**, Xuanzhe Liu, Xin Jin. (2025). **Efficient Fault Tolerance for Stateful Serverless Computing with Asymmetric Logging**. *ACM Transactions on Computer Systems*, just accepted. DOI: 10.1145/3725985

SCHOLARSHIPS AND AWARDS

- **Tianchuang Scholarship**, EECS, Peking University Dec. 2024
- **Award for Scientific Research**, Peking University Dec. 2024
- **Award for Academic Excellents**, Peking University Dec. 2023
- **UBIQUANT Scholarship**, Peking University Dec. 2022
- **Merit Student**, Peking University Dec. 2022

SKILLS

- **Programming Languages:** C, C++, Python, Rust, Java, Go
- **Languages:** Chinese, English