

Yuchen Fan

Tsinghua University, Haidian District, Beijing, 100084 | fanyc22@mails.tsinghua.edu.cn
177 3020 1268 | github.com/fanyc22

About Me

I am Yuchen Fan, a fourth year undergraduate student at Department of Electronic Engineering of Tsinghua University. I am also an incoming Ph.D. student advised by Prof. Shuwen Deng.

Research Interests

My research interests lie in **computer architecture and hardware security**. Previously, I have worked on the **RDMA security challenges**.

Education

Honors and Awards

China National Scholarship (2024-2025)	Dec 2025
China National Scholarship (2023-2024)	Dec 2024
The Comprehensive Excellence Scholarship of Tsinghua University (2024-2025)	Dec 2025
The Comprehensive Excellence Scholarship of Tsinghua University (2023-2024)	Dec 2024
The Comprehensive Excellence Scholarship of Tsinghua University (2022-2023)	Dec 2023
Third Prize, NSCSCC'24 – CPU Design Competition (Loongson Cup)	Aug 2024

Publications

RAGNAR: Exploring Volatile-Channel Vulnerabilities on RDMA NIC DAC'25
Yunpeng Xu, *Yuchen Fan*, Teng Ma, Shuwen Deng June 2025

DROW: Training-Free Load Speculative Execution Attacks on Apple Silicon uASC'26
Yuchen Fan, Yu Jin, Chang Liu, Minghong Sun, Xuanzeng Song, Tingting Yin, Shuwen Deng Feb 2026

Projects

Research on Black-box Microarchitecture Reverse Engineering and Timing Side-Channel Security Threats in Modern Computing Systems Sept 2025 – June 2026

- Project supported by Youth Student Basic Research Project (Undergraduate Students) of the National Natural Science Foundation of China (Grant No. 625B1004).

Technical Skills

Programming: C/C++, Python, Verilog, Bash, SpinalHDL, JavaScript

Tools: Linux, Docker, Git, PyTorch, Cadence, Vivado

Mathematics: Calculus, linear algebra, differential equations, probability theory and stochastic processes; earned A+ grades in all related undergraduate courses