

Yuchen Fan

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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

Tsinghua University, BS in Electronic science and technology – Beijing, China Sept 2022 – present
• GPA: 3.9 / 4.0; **earned A+ in 40 out of 134 credits**
• Rank: **3rd** out of 298 students (1.0%)

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, <i>Yuchen Fan</i> , Teng Ma, Shuwen Deng	June 2025
DROW: Training-Free Load Speculative Execution Attacks on Apple Silicon	uASC'26
<i>Yuchen Fan</i> , 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