Xiyu Hao

M.S. Student · Computer Science · New York University

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Education

New York University — *New York City, NY*
M.S. Computer Science, GPA: 4.0/4.0 — *Dec.2024 - present*
- Advisor: Prof. Anirudh Sivaraman

New York University — *New York City, NY*
B.A. Computer Science, GPA: 3.86/4.0 — *Sept.2021 - Dec.2024*
- Undergrad research advisor: Prof. Anirudh Sivaraman

Publications

Published

Haseeb Ashfaq, Jinkun Geng, Daniel D-Cavalcanti, **Xiyu, Hao**, Ulysses Butler, Radhika Mittal, Srinivas Narayana, Anirudh Sivaraman. *Network Support For Scalable And High-Performance Cloud Exchanges*. **ACM SIGCOMM 25**.

- Implemented the management layer for node instances for controllability and data collection;
- Simulated networks for evaluating specialized mechanisms (proxy hedging and Round-Robin Proxy Spray);
- Measured the performance of different multicast tree structures under various numbers of servers.

In Prep

Daniel Qian, **Xiyu Hao**, Jinkun Geng, Shuai Mu, Jinyang Li, Aurojit Panda, Anirudh Sivaraman. *OooBFT: Optimistically Ordered One-Round Trip BFT Protocol*. Targeting submission to *ACM OSDI 26*.

- Designed a heuristic-based log alignment mechanism for more reliable and efficient checkpointing;
- Implemented PBFT as the fallback mechanism and a K/V store as an exemplary application layer;
- Reproduced the results from previous works like PBFT, Zyzzyva, and Autobahn.

[Mid-Stage] **Xiyu Hao**, Xiangyu Gao, Francis Y. Yan, Anirudh Sivaraman. *Learning-assisted Compiler for Packet Processing*.

- Developed a learned model for predicting P4 Tofino table SRAM usage, achieving an MAPE of 10.22% for simple setups;
- Enhanced a random P4 program generator to produce complex, resource-intensive DAGs, generating 10,000+ synthetic programs for model training;
- Working on a P4 Program sampler backend that randomly generates semantic-preserving rewrite candidates.

Professional Experience

Jun.2023 - present — **Student Researcher**, New York University

Jan.2024 - Aug.2024 — **SWE Intern**, Advanced Micro Devices, Inc. (AMD - Shanghai Office)

Teaching Experience

Fall 2025 — **CSCI-UA 310 - Basic Algorithms**, Recitation Leader — *NYU*
Fall 2025 — **CSCI-UA 202 - Operating Systems**, Teaching Assistant — *NYU*
Fall 2023 — **CSCI-UA 201 - Computer System Organization**, Tutor — *NYU*