

GUANGNAN FENG

✉ fenggn3@mail2.sysu.edu.cn · ☎ (+86) 13538585524 · 🌐 <http://blog.sysu.tech/cv/>

🎓 EDUCATION

Sun Yat-sen University (SYSU), Guangzhou, China 2019.09 – 2024(expected)

Ph.D. candidate in School of Computer Science and Engineering (CSE)

Advised by Prof. Yutong Lu (SYSU, NSCC-GZ), Dezun Dong (NUDT, HiNA), Yunfei Du (HUAWEI)

Sun Yat-sen University, Guangzhou, China

2015.09 – 2019.06

B.S. in Computer Science and Engineering

♥ RESEARCH INTERESTS

High Performance Network

- Collective communication: All-Reduce, All-to-All, All-Gather, Reduce-Scatter optimization;
- Reconfigurable Network: Resource allocation policy, reconfiguration algorithm;
- RDMA network protocol stacks: GLEX, Infiniband, RoCE;
- Topology; In-network computing; Routing; Congestion Control.

🏢 PUBLICATIONS

- **Guangnan Feng**, Dezun Dong, Shizhen Zhao, and Yutong Lu. *GRAP: Group-level Resource Allocation Policy for Reconfigurable Dragonfly Network in HPC*. In 2023 International Conference on Supercomputing (ICS '23)
- **Guangnan Feng**, Dezun Dong, and Yutong Lu. *Optimized MPI Collective Algorithms for Dragonfly Topology*. In 2022 International Conference on Supercomputing (ICS '22)

🏆 HONORS AND AWARDS

- PAC22 (Parallel Application Challenge), *2nd Place* in Application Track @ Jinan, China 2022.11
- 2022 Kunpeng Application Innovation Competition, *1st Prize* in HPC track @ Hangzhou, China 2022.10
- ISC19 Student Cluster Competition, *4th Place* (team captain) @ Frankfurt, Germany 2019.06
- ASC19 Student Cluster Competition, Highest HPL, e-Prize, *3rd Place* @ Dalian, China 2019.04
- Yuerou Li Foundation Scholarship (Top prize scholarship in SYSU) 2018.12
- *1st Prize* Student Scholarship in SYSU 2018.10
- CPC18 (China Parallel Application Challenge on Domestic CPU), *4th Place* @ Wuxi, China 2018.10
- ASC18 Student Cluster Competition, *6th Place* (team captain) @ Nanchang, China 2018.05

🐾 INTERNSHIP

- NUDT, High-performance Networking Architecture Lab (HiNA) 2021.07-Present(Remote)
- HUAWEI, Computing Research Department 2022.07-2023.04
- National Supercomputing Center in Guangzhou (NSCC-GZ), System Department 2018.09-2019.04

🔪 RESEARCH PROJECT

- Reconfigurable Dragonfly Network for HPC (with HUAWEI) 2022.07-2023.04
- Optimized MPI Collective Algorithms for Dragonfly Topology (with NUDT, HiNA) 2021.07-2022.06
- Investigation and analysis of DPU for HPC application 2021.03-2021.05
- Routing optimization and Fault analysis for Tianhe-2 (with NSCC-GZ) 2020.02-2021.02
- Performance analysis of RoCE for HPC applications and container (with NSCC-GZ) 2018.09-2020.01