Yunzhuo Liu

My research interests include distributed training, programmable networks and container networks. (Home page: https://liu445126256.github.io/)

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EDUCATION

Shanghai Jiao Tong University   **2019.9-present**
 Ph.D. in Computer Science (expected Mar. 2025)
 John Hopcroft Center, Advisor: Bo Jiang

Shanghai Jiao Tong University   **2015.9-2019.7**
 B.S. in Information Security

PUBLICATIONS

1. **Yunzhuo Liu**, Junchen Guo, Bo Jiang, Yang Song, Pengyu Zhang, Rong Wen, Biao Lyu, Shunmin Zhu, Xinbing Wang, "FastIOV: Fast Startup of Passthrough Network I/O Virtualization for Secure Containers". (in submission, 2024)
2. **Yunzhuo Liu**, Junchen Guo, Pengyu Zhang, Bo Jiang, Xiaoqing Sun, Yang Song, Wei Ren, Zhiyuan Hou, Biao Lyu, Rong Wen, Shunmin Zhu, Xinbing Wang, "Understanding Network Startup for Secure Containers in Multi-Tenant Clouds: Performance, Bottleneck and Optimization". (in submission, 2024)
3. **Yunzhuo Liu**, Hao Nie, Hui Cai, Bo Jiang, Pengyu Zhang, Yirui Liu, Yidong Yao, Xionglie Wei, Biao Lyu, Chenren Xu, Shunmin Zhu, Xinbing Wang, "X-Plane: A High-Throughput Large-Capacity 5G UPF". (MobiCom 2023)
4. Peirui Cao, Shizhen Zhao, Dai Zhang, Zhuotao Liu, Mingwei Xu, Min Yee Teh, **Yunzhuo Liu**, Xinbing Wang, Chenghu Zhou, "Threshold-Based Routing-Topology Co-Design for Optical Data Center". (ToN 2023)
5. **Yunzhuo Liu**, Bo Jiang, Shizhen Zhao, Tao Lin, Xinbing Wang, Chenghu Zhou, "LIBRA: Contention-Aware GPU Thread Allocation for Data Parallel Training in High Speed Networks". (INFOCOM 2023)
6. **Yunzhuo Liu**, Bo Jiang, Tian Guo, Zimeng Huang, Wenhao Ma, Xinbing Wang, Chenghu Zhou, "FuncPipe: A Pipelined Serverless Framework for Fast and Cost-efficient Training of Deep Learning Models". (Sigmetrics 2023)
7. Zimeng Huang, Bo Jiang, Tian Guo, **Yunzhuo Liu**, "Measuring the Impact of Gradient Accumulation on Cloud-based Distributed Training". (CCGrid 2023)
8. Peirui Cao, Shizhen Zhao, Min Yee Teh, **Yunzhuo Liu**, Xinbing Wang, "TROD: Evolving From Electrical Data Center to Optical Data Center". (ICNP 2021)
9. **Yunzhuo Liu**, Bo Jiang, Tian Guo, Ramesh K. Sitaraman, Don Towsley, Xinbing Wang, "Grad: Learning for Overhead-aware Adaptive Video Streaming with Scalable Video Coding". (ACM Multimedia 2020)

AWARDS

- Hua Wei Scholarship, 2023.
- Second Prize for Outstanding Ph.D. Student in John Hopcroft Center, 2023.
- Hua Wei Scholarship, 2020.
- Third Prize for National Post-Graduate Mathematical Contest in Modeling, 2019.
- Second Prize in the National College Student Information Security Competition, 2018.

INTERNSHIPS

- May 2023 ~ Feb. 2024 - Research Intern at Alibaba Cloud.
- Oct. 2022 ~ May 2023 - Research Intern at Alibaba DAMO Academy, XG Lab.

TEACHING ASSISTANT

- SJTU EI331: Signals and Systems, Spring 2021.
- SJTU CS257: Linear and Convex Optimization, Fall 2020.
- SJTU EI331: Signals and Systems, Spring 2020.