Jinbin Hu | Curriculum Vitae
Changsha University of Science and Technology – Changsha – China

📱 +86-15274826560   •   ✉ jinbinhu@csust.edu.cn

I am currently a Post-doctoral from Department of Computer Science and Engineering, Hong Kong University of Science and Technology, Hong Kong SAR, advised by Prof. Kai Chen. Meanwhile, I am working in the School of Computer and Communication Engineering, Changsha University of Science and Technology, Hunan Province, Changsha, China. My current research centers on transport protocols and load balancing for large-scale datacenter networks, RDMA networking, learning-based network systems, communication optimization for deep neural network, and programmable switching architectures[*].

Education

PostDoc, Dept. of CSE, Hong Kong University of Science and Technology　　　**Hong Kong SAR**
Computer Science and Engineering　　　*1.2022–*

Advisor: Prof. Kai Chen.

Ph.D., School of Computer Science & Engineering, Central South University　　　**Changsha, China**
Computer Science and Technology　　　*9.2016–12.2020*

Advisor: Prof. Jiawei Huang.

M.S., School of Electronic & Information Engineering, Beijing Jiaotong University　　　**Beijing, China**
Microelectronics and Solid State Electronics　　　*9.2008–1.2011*

Advisor: Prof. Xiaoguang Li.

B.S., School of Electronic & Information Engineering, Beijing Jiaotong University　　　**Beijing, China**
Electronic Science and Technology　　　*9.2004–7.2008*

Experiences

Changsha University of Science & Technology　　　**Changsha, China**
Associate Professor　　　*12.2021–*

Teaching and researching in School of Computer and Communication Engineering.

Hunan Mechanical & Electrical Polytechnic　　　**Changsha, China**
Engineer　　　*8.2014–12.2021*

Teaching and researching in School of Electrical Engineering.

National University of Defense Technology　　　**Changsha, China**
FPGA Verification Engineer　　　*8.2013–8.2014*

Responsible for FPGA verification of multi-core CPU in Microelectronics Institute.

Empyrean Technology Co., Ltd　　　**Beijing, China**
IC Software Test Engineer　　　*1.2011–8.2013*

Responsible for IC simulation software testing.

---

[*]Last Updated Mar. 2024

Representative Publications

1. **TaLB: Tensor-aware Load Balancing for Distributed DNN Training Acceleration**
   Jinbin Hu, Yi He, Wangqing Luo, Jiawei Huang, Jianxin Wang.
   In Proc. IEEE/ACM IWQoS, 2024. (CCF B)
   4.2024

2. **Load Balancing with Multi-level Signals for Lossless Datacenter Networks**
   Jinbin Hu, Chaoliang Zeng, Zilong Wang, Junxue Zhang, Kun Guo, Hong Xu, Jiawei Huang, Kai Chen.
   IEEE/ACM Transactions on Networking, 2024, DOI: 10.1109/TNET.2024.3366336 (CCF A)
   2.2024

3. **Enabling Load Balancing for Lossless Datacenters**
   Jinbin Hu, Chaoliang Zeng, Zilong Wang, Junxue Zhang, kun Guo, Hong Xu, Jiawei Huang, kai chen.
   In Proc. IEEE ICNP, 2023. (CCF B, Best Paper Award)
   10.2023

4. **Adaptive Routing for Datacenter Networks Using Ant Colony Optimization**
   Jinbin Hu, Man He, Shuying Rao, Yue Wang, Jing Wang and Shiming He.
   In Proc. IEEE ICA3PP, 2023. (CCF C, Best Paper Award)
   10.2023

5. **RLB: Reordering-Robust Load Balancing in Lossless Datacenter Networks**
   Jinbin Hu, Yi He, Jin Wang, Wangqing Luo, Jiawei Huang.
   In Proc. ACM ICPP, 2023. (CCF B)
   8.2023

6. **A Receiver-Driven Transport Protocol with High Link Utilization Using Anti-ECN Marking in Data Center Networks**
   Jinbin Hu, Jiawei Huang, Zhaoyi Li, Jianxin Wang and Tian He.
   IEEE Transactions on Network and Service Management, 2023, 20(2):1898-1912. (CCF C)
   6.2023

7. **Load Balancing in PFC-Enabled Datacenter Networks**
   Jinbin Hu, Chaoliang Zeng, Zilong Wang, Hong Xu, Jiawei Huang, Kai Chen.
   In Proc. ACM APNet, 2022. (CCF C)
   7.2022

8. **RPO: Receiver-driven Transport Protocol Using Opportunistic Transmission in Data Center**
   Jinbin Hu, Jiawei Huang, Zhaoyi Li, Yijun Li, Wenchao Jiang, Kai Chen, Jianxin Wang and Tian He.
   In Proc. IEEE ICNP, 2021. (CCF B)
   11.2021

9. **Adjusting Switching Granularity of Load Balancing for Heterogeneous Datacenter Traffic**
   Jinbin Hu, Jiawei Huang, Wenjun Lv, Weihe Li, Zhaoyi Li, Wenchao Jiang, Jianxin Wang and Tian He.
   IEEE/ACM Transactions on Networking, 2021, 29(5): 2367-2384. (CCF A)
   6.2021

10. **AMRT: Anti-ECN Marking to Improve Utilization of Receiver-driven Transmission in Data Center**
    Jinbin Hu, Jiawei Huang, Zhaoyi Li, Jianxin Wang and Tian He.
    In Proc. ACM ICPP, 2020. (CCF B)
    8.2020

11. **CAPS: Coding-based Adaptive Packet Spraying to Reduce Flow Completion Time in Data Center**
    Jinbin Hu, Jiawei Huang, Wenjun Lv, Yutao Zhou, Jianxin Wang and Tian He.
    IEEE/ACM Transactions on Networking, 2019, 27(6): 2338-2353. (CCF A)
    10.2019

12. **TLB: Traffic-aware Load Balancing with Adaptive Granularity in Data Center Networks**
Jinbin Hu, Jiawei Huang, Wenjun Lv, Weihe Li, Jianxin Wang and Tian He. *8.2019*
In Proc. ACM ICPP, 2019. (CCF B)

13. **CAPS: Coding-based Adaptive Packet Spraying to Reduce Flow Completion Time in Data Center**
Jinbin Hu, Jiawei Huang, Wenjun Lv, Yutao Zhou, Jianxin Wang and Tian He. *4.2018*
In Proc. IEEE INFOCOM, 2018. (CCF A)

Research Project

- **The National Natural Science Foundation of China**
  Study on Transport Control in Data Center Lossless Network Based on Priority-based Flow Control, NO.62102046, 2022.1.1-2024.12.31. (PI)
- **The Natural Science Foundation of Hunan Province**
  Study on Communication Optimization Technology for Distributed Deep Neural Network, NO.2022JJ30618, 2022.1.1-2024.12.31. (PI)
- **The Scientific Research Fund of Hunan Provincial Education Department**
  Study on Load Balancing for Lossless Datacenter Networks, NO.22B0300, 2023.1.1-2025.12.31. (PI)