

TENG MA

✉ stmatengss@163.com · in stmatengss

🎓 EDUCATION & EXPERIENCE

Institute of Automate, CAS & Alibaba Cloud & Damo Academy, Beijing, China 2021 Jul – Present

Postdoc in Computer Science (CS), Advisor: Prof. Zhaoxiang Zhang and Dr. Zhengyu He

Tsinghua University, Beijing, China 2016 Sep – 2021 Jun

Ph.D in Computer Science (CS), Advisor: Prof. Yongwei Wu and Prof. Kang Chen

University of Chicago, Chicago, USA 2020 Jan – 2020 May

visiting Ph.D student in Computer Science (CS), Advisor: Prof. Shan Lu

University of Science and Technology Beijing, Beijing, China 2012 Sep – 2016 Jun

B.S. in Computer Science (CS), Thesis Advisor: Prof. Xucheng Yin

University of Science and Technology Beijing, Beijing, China 2013 Sep – 2016 Jun

B.S. in Financial Engineering (FE)

📖 PUBLICATIONS

1. DySched: Relieving Large-Scale RDMA Incast for Cloud-Native Applications;
(Under submission)
2. Partial Failure Resilient Memory Management System for (CXL-based) Distributed Shared Memory;
Mingxing Zhang*, **Teng Ma***, Jinqi Hua, Zheng Liu, Kang Chen, Ning Ding, Fan Du, Jinlei Jiang, Tao Ma, Yongwei Wu;
The 29th ACM Symposium on Operating Systems Principles (SOSP), 2023 (*: equally contributions)
3. Efficient Scheduler Live Update for Linux Kernel with Modularization;
Teng Ma, Shanpei Chen, Yihao Wu, Erwei Deng, Zhuo Song, Quan Chen, Minyi Guo;
28th ACM International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS, CCF A), 2023
4. LigBee: Symbol-Level Cross-Technology Communication from LoRa to ZigBee;
Zhe Wang, Linghe Kong, Longfei Shangguan, Liang He, Kangjie Xu, Yifeng Cao, Hui Yu, Qiao Xiang, Jiadi Yu, **Teng Ma**, Zhuo Song, Zheng Liu, Guihai Chen;
IEEE INFOCOM (CCF A), 2023
5. A Survey of Storage Systems in the RDMA Era;
Shaonan Ma*, **Teng Ma***, Kang Chen, Yongwei Wu;
IEEE Transactions on Parallel and Distributed Systems (TPDS, CCF A), 2022 (*: equally contributions)
6. Log-ROC: Log Structured RAID on Open-Channel SSD;
Teng Ma, Zhitao Li and Ning Liu;
IEEE International Conference on Computer Design (ICCD, CCF B); 2022
7. SeqDLM: a Sequencer-based Distributed Lock Manager for Efficient Shared File Access in a Parallel File System;
Qi Chen, Shaonan Ma, Kang Chen, **Teng Ma**, Xin Liu, Dexun Chen, Yongwei Wu, Zuoning Chen;
The International Conference for High Performance Computing, Networking, Storage, and Analysis (SC 2022, CCF A)
8. Clinical Phenotyping Prediction via Auxiliary Task Selection and Adaptive Shared-Space Correction;
Xiao Yang, Ning Liu, Jianbo Qiao, Haitao Yuan, **Teng Ma**, Yonghui Xu, Lizhen Cui;
CAAI International Conference on Artificial Intelligence, 2022
9. Zero Overhead Monitoring for Cloud-native Infrastructure using RDMA;
Zhe Wang, **Teng Ma**, Linghe Kong, Zhenzao Wen, Jingxuan Li, Zhuo Song, Yang Lu, Yong Yang, and Tao

Ma, Guihai Chen, Wei Cao;

2022 USENIX Annual Technical Conference (ATC 2022, CCF A)

10. Thinking More about RDMA Memory Semantics;
Teng Ma, Kang Chen, Shaonan Ma, Zhuo Song, Yongwei Wu; 2021 IEEE International Conference on Cluster Computing (CLUSTER 2021)
11. CUBIST: High-Quality 360-Degree Video Streaming Services via Tile-based Edge Caching and FoV-Adaptive Prefetching;
Dongbiao He, **Teng Ma**, Jinlei Jiang, Cedric Westphal, Guangwen Yang, Shutao Xia and Jose Garcia-Luna-Aceves; 2021 IEEE International Conference on Web Services (ICWS 2021)
12. HybridSkipList: A Case Study of Designing Distributed Data Structure with Hybrid RDMA;
Teng Ma, Ning Liu and Dongbiao He; 45th Annual International Computer Software and Applications Conference (COMPAC 2021)
13. AsymNVM: An Efficient Framework for Implementing Persistent Data Structures on Asymmetric NVM Architecture;
Teng Ma, Mingxing Zhang, Kang Chen, Xuehai Qian, Yongwei Wu; 25th International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS 2020)
14. X-RDMA: Effective RDMA Middleware in Large-scale Production;
Teng Ma, Tao Ma, Zhuo Song, Kang Chen, Hai Jiang, Yongwei Wu; 2019 IEEE International Conference on Cluster Computing (CLUSTER 2019)
15. RF-RPC: Remote Fetching RPC Paradigm for RDMA-Enabled Network;
Teng Ma, Yongwei Wu, Maomeng Su, Mingxing Zhang, Kang Chen, Zhenyu Guo; IEEE Transactions on Parallel and Distributed Systems (TPDS), 2018
16. Large Scale Communication in Cloud Needs Hybrid RDMA Schema;
Teng Ma, Mingxing Zhang, Zhuo Song, Mengxing Liu, Kang Chen, Yongwei Wu, 13th USENIX Symposium on Operating Systems Design and Implementation (OSDI), 2018 (Poster)
17. NVM allocator in Disaggregation Era;
Teng Ma, Mingxing Zhang, Dongbiao He, Kang Chen, Yongwei Wu, 13th USENIX Symposium on Operating Systems Design and Implementation (OSDI), 2018 (Poster)
18. Measuring and Optimizing Distributed Array Programs;
Mingxing Zhang, Yongwei Wu, Kang Chen, **Teng Ma**, Weimin Zheng; 42nd International Conference on Very Large Data Bases (VLDB), 2016

PATENTS

1. Systems and methods for remote procedure call
Kang Chen, Yongwei Wu, Weimin Zheng, Maomeng Su, **Teng Ma**, Mingxing Zhang
US Patent App. 15/919,821
2. Systems and methods for implementing persistent data structures on an asymmetric non-volatile memory architecture
Kang Chen, **Teng Ma**, Yongwei Wu, Mingxing Zhang
US Patent App. 16/903,760

HONORS AND AWARDS

Renmin Scholarship	Dec. 2019
Sohu Scholarship	Oct. 2019
<i>1st Prize</i> , The 6th Student RDMA Programming Competition (host by Mellanox Inc)	Oct. 2018
<i>1st Place</i> , APAC HPC-AI competition (host by HPC-AI Advisory Council & NSCC)	Aug. 2018
National Scholarship	Dec. 2015
<i>Bronze Model</i> , ACM-ICPC Asia Shanghai Regional Contest	Oct. 2015
<i>Bronze Model</i> , ACM-ICPC China Shanghai Metropolitan Programming Contest	May. 2015
<i>Honorable Mention</i> , Mathematical Contest In Modeling	2015
<i>Second Prize</i> , China IOT(Internet of Things) Contest	May. 2014

i MISCELLANEOUS

- Blog: <http://stmatengss.github.io/blog>
- Languages: English - Fluent, Mandarin - Native speaker