

Meng Zhang

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About Me

I am currently a Ph.D. candidate under the supervision of Prof. Tianwei Zhang at S-Lab, College of Computing and Data Science of Nanyang Technological University, Singapore.

Research Interests

- Distributed Training.
- Systems for Graph Learning.
- Machine Learning for Systems.

Education

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| Nanyang Technological University, Singapore, Ph.D. candidate in Computer Science Supervisor: Prof. Tianwei Zhang | Jan 2022 – Now |
| National University of Singapore, Singapore, M.Sc. in Electrical Engineering | Jan 2021 – Jan 2022 |
| Zhejiang University, China, B.Eng. in Information Engineering | Sept 2016 – Jun 2020 |

Publications

TorchGT: A Holistic System for Large-scale Graph Transformer Training

[Meng Zhang](#)^{*}, Jie Sun^{*}, Qinghao Hu, Peng Sun, Zeke Wang, Yonggang Wen, Tianwei Zhang

Proceedings of the International Conference for High Performance Computing, Networking, Storage and Analysis (SC), 2024 [[Paper](#)]

Sylvie: 3D-adaptive and Universal System for Large-scale Graph Neural Network Training

[Meng Zhang](#), Qinghao Hu, Cheng Wan, Haozhao Wang, Peng Sun, Yonggang Wen, Tianwei Zhang

IEEE International Conference on Data Engineering (ICDE), 2024

Lucid: A non-intrusive, scalable and interpretable scheduler for deep learning training jobs

Qinghao Hu^{*}, [Meng Zhang](#)^{*}, Peng Sun, Yonggang Wen, and Tianwei Zhang

Architectural Support for Programming Languages and Operating Systems (ASPLOS), 2023 [[Paper](#)]

Distinguished Paper Award

Characterization of Large Language Model Development in the Datacenter

Qinghao Hu^{*}, Zhisheng Ye^{*}, Zerui Wang^{*}, Guoteng Wang, [Meng Zhang](#), Qiaoling Chen, Peng Sun, Dahua Lin, Xiaolin Wang, Yingwei Luo, Yonggang Wen, Tianwei Zhang

USENIX Symposium on Networked Systems Design and Implementation (NSDI), 2024 [[Paper](#)]

Hydro: Surrogate-based Hyperparameter Tuning Service in Datacenters

Qinghao Hu, Zhisheng Ye, [Meng Zhang](#), Qiaoling Chen, Peng Sun, Yonggang Wen, Tianwei Zhang

USENIX Symposium on Operating Systems Design and Implementation (OSDI), 2023 [[Paper](#)]

FedDSE: Distribution-aware Sub-model Extraction for Federated Learning over Resource-constrained Devices

Haozhao Wang, Yabo Jia, [Meng Zhang](#), Qinghao Hu, Hao Ren, Peng Sun, Yonggang Wen, Tianwei Zhang

The Web Conference (WWW), 2024 [[Paper](#)]

Preprint

Boosting Distributed Full-graph GNN Training with Asynchronous One-bit Communication

Meng Zhang, Qinghao Hu, Peng Sun, Yonggang Wen, Tianwei Zhang

arXiv, 2023 [[Paper](#)]

Experience

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| System Research Intern , NDS Group @ Shanghai AI Lab | June 2023 – Now |
| Research Intern , Tencent JARVIS Lab | Oct 2020 – Feb 2021 |
| Research Intern , Singapore University of Technology and Design | Jul 2019 - Sept 2021 |

Professional Services

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| Shadow Committee Member | [EuroSys 2023] |
| AE Committee Member | [MLSys 2023] |
| Presenter & AE Committee Member | [OSDI 2023] |

Awards

Distinguished Paper Award of ASPLOS, 2023.

Student Travel Grant of OSDI, 2023.