Wenyan Chen

CONTACT INFORMATION

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University of Macau

EDUCATION

University of Macau, China, (Aug. 2021 – Present)

PhD, Computer Science
Advisors: Prof. Huanle Xu, and Prof. Kejiang Ye

Northeast Normal University/University of Chinese Academy of Sciences, China, (Sep. 2016 - Jul. 2019)

M.S., Software Engineering
Advisor: Prof. Chengzhong Xu, Dean of FST in University of Macau

Zhengzhou University, China, (Sep. 2012 - Jun. 2016)

B.S., Computer Science

PUBLICATIONS

[**EuroSys'25**] **Wenyan Chen**, Chengzhi Lu, Huanle Xu, Kejiang Ye, and Cheng-Zhong Xu. Multiplexing Dynamic Deep Learning Workloads with SLO-awareness in GPU Clusters.

[**SC'24**] Chengzhi Lu, Huanle Xu, Yudan Li, **Wenyan Chen**, Kejiang Ye, and Chengzhong Xu. SMIless: Serving DAG-based Inference with Dynamic Invocations under Serverless Computing.

[**SC'23**] **Wenyan Chen**, Zizhao Mo, Huanle Xu, Kejiang Ye, and Chengzhong Xu. Interference-aware Multiplexing for Deep Learning in GPU Clusters: A Middleware Approach.

[**CLUSTER'21**] **Wenyan Chen**, Chengzhi Lu, Kejiang Ye, Yang Wang, Chengzhong Xu. RPTCN: Resource Prediction for High-dynamic Workloads in Clouds based on Deep Learning.

[**JCST'20**] **Wenyan Chen**, Kejiang Ye, Chengzhi Lu, Dongdai Zhou, Chengzhong Xu. Interference analysis of co-located container workloads: a perspective from hardware performance counters.

[**HPCC'20**] Guomei Shi, Lili, Jun Wang, **Wenyan Chen**, Kejiang Ye, Chengzhong Xu. HySync: Hybrid federated learning with effective synchronization.

[**HPCC'19**] **Wenyan Chen**, Kejiang Ye, Chengzhong Xu. Co-locating online workload and offline workload in the cloud: An interference analysis.

[**ICPADS'19**] Chengzhi Lu, Kejiang Ye, **Wenyan Chen**, Chengzhong Xu. ADGS: Anomaly Detection and Localization based on Graph Similarity in Container-based Clouds.

[**ICPADS'18**] **Wenyan Chen**, Kejiang Ye, Yang Wang, Guoyao Xu, Chengzhong Xu. How does the workload look like in production cloud? analysis and clustering of workloads on alibaba cluster trace.

RECENT RESEARCH PROJECTS

System optimization for DL applications in GPU clusters

- Enhance the performance of DL applications from the perspective of system optimization.
- Combine task placement and GPU multiplexing to maximize resource efficiency.

Resource allocation and interference modeling for hybrid tasks in large-scale clusters

- ML-based resource allocation for cloud clusters.

- Precise interference quantification of hybrid tasks in large-scale clusters.

Academic Experience

Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
Assistant Engineer — Jul. 2019 - Jul. 2021

- Improved resource usage prediction accuracy by upto 89% by implementing a TCN-based prediction algorithm
- Designed efficient task scheduling policies based on interference-aware analysis

Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences
Visting Student — Mar. 2018 - Jun. 2019

- Quantified the interference from the micro-architecture level of hybrid tasks
- Analyzed and modeled the performance of hybrid tasks in production cloud clusters

Honors and Awards

Student Travel Grant of EuroSys 2025.	2025
Outstanding Student Award of Dean Scholarship in SIAT, CAS.	2018-2023
Outstanding Graduate of Northeast Normal University.	2019
Excellent Postgraduate of Northeast Normal University.	2018
First Prize of ACM Programming Competition of Zhengzhou University.	2015

Services

Web Chair of HDIS 2023	2023
Teaching Assistant of Human-computer interaction, University of Macau	2021

Skills

Python, GO, Git, LaTex, Java
Kubernetes, Docker, CUDA