


Yihao ZHAO

Ph.D. Student, Peking University

 [Yihao Zhao's Homepage](#)

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Education

Peking University (PKU)

Ph.D., School of Computer Science

Advisor: Xuanzhe Liu

Co-advisor: Xin Jin

Beijing, China

Sept. 2021 – Present

Peking University (PKU)

B.E. in Computer Science, Turing Class

Overall GPA: 3.78/4.0 (top 7%)

Beijing, China

Sept. 2017- Jul. 2021

Research Experience

Research Assistant, SAAS research lab, PKU

Sept. 2020 - Present

Advisor: Prof. Xin Jin, Prof. Xuanzhe Liu

➤ Execution- and Resource-efficient Cluster Scheduling for Deep Learning

- Identified the opportunity of interleaving DL training jobs on the usage of multiple resource types.
- Designed a scheduling algorithm based on Blossom algorithm that considers the multi-resource usage of each job to maximize the interleaving efficiency.
- Proposed a cluster scheduler for DL workloads, Muri, that exploits multi-resource interleaving and built a prototype, which improves the average JCT by up to 6.2x, makespan by up to 1.7x, and tail JCT by up to 5.4x.

Research Assistant, Hyperplane Group, CFCS, PKU

Jul. 2019 – Aug. 2020

Advisor: Prof. Hao Dong

➤ Unpaired Image-to-image Translation Problems

- Proposed a novel adversarial consistency loss for image-to-image translation which overcomes the drawbacks of the widely used cycle-consistent loss; that is to say, our method can perform geometric changes, remove large objects, and ignore irrelevant texture.
- Achieved state-of-the-art results on several challenging image-to-image translation tasks, e.g., glass removal.

Publications

Conference Papers

- [1] **Yihao Zhao**, Yuanqiang Liu, Yanghua Peng, Yibo Zhu, Xuanzhe Liu, Xin Jin, “Multi-Resource Interleaving for Deep Learning Training”, in ACM SIGCOMM, 2022
- [2] **Yihao Zhao**, Ruihai Wu, Hao Dong, “Unpaired Image-to-Image Translation using Adversarial Consistency Loss”, in ECCV, 2020

Teaching Experience

Teaching Assistant

Introduction to Computing

Fall 2021

Deep Generative Models

Spring 2020

Introduction to Computer Systems

Fall 2019

Awards and Honors

Third Prize, Peking University Award, PKU

Oct. 2020

Merit Student Award, PKU

Oct. 2020

First Prize, Turing Benjing Award, PKU

Oct. 2019

Benz Scholarship (Only 2 for Grade 2017, EECS), PKU

Oct. 2018

Merit Student Award, PKU

Oct. 2018

Skills

- Programming Languages: Python, C++
- Deep Learning Toolkits: PyTorch, TensorFlow