Linchang Xiao

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Education

Sun Yat-sen University (SYSU), Guangzhou, China 2022 – 2025

- *M.S.* in Electronic and Information Engineering (**Honored Graduate of SYSU** and **Chinese National Scholarship Awardee**)
- Advisor: Prof. Di Wu
- Research Interests: High Performance Computing, Scheduling and Resource Allocation

Sun Yat-sen University (SYSU), Guangzhou, China 2018 – 2022

- *B.S.* in Software Engineering
- Courses: Operating system, Computer network, Parallel and distributed computing

Working Experience

Alibaba Hangzhou, China 2024/06 – Present

R&D in Kubernetes-based AI Infrastructure

- Optimize data storage and I/O in model training.
- Participate in the development of fault tolerance for distributed model training.

ByteDance Shenzhen, China 2021/05 – 2021/10

R&D in Ulike Camera, CapCut and Xingtu Pichype

- Develop and optimize media storage SDK in Ulike Camera.

Project Experience

Kubernetes-based privacy-preserving AI platform 2021/11 – 2022/08

- Develop a platform that provides a environment for users to **write, debug, train and deploy** their AI models online.
- Develop features for proactive acquisition of private training dataset based on the value of the training model and the privacy budget of private training data. Research Paper in TSC(CCF'A)
- Develop features that enables Cost-aware Scheduling, Cluster Autoscaling and GPU-sharing. Research Paper in TMC(CCF'A)
- Some features can be experienced in EasyHPC.

Research Experience (PAPER LIST)

CRS: A Cost-Aware Resource Scheduling Framework for Deep Learning Task Orchestration in Mobile Clouds 2021/11 – 2022/08

- Propose a cost-aware resource scheduling framework orchestrating DL task execution in cloud.
- Devise an approximation algorithm with a guaranteed upper bound performance ratio.
- Accepted in IEEE Transactions on Mobile Computing (TMC, CCF-A).

History-Aware Privacy Budget Allocation for Model Training on Evolving Data-Sharing Platforms 2022/09 – 2023/08

- Propose a novel History-aware Privacy Budget Allocation algorithm for *Differential Privacy*-based data-sharing platforms
- Provide the detailed competitive analysis to proof the performance of HPBA is theoretically guaranteed
- Accepted in IEEE Transactions on Services Computing (TSC, CCF-A).

Skills

- Programming Languages: Go, C++, Python, Swift, Objective-C
- Tools: Kubernetes, Ray, PyTorch, MPI, LaTeX
- English: CET-4 and CET-6
- Blog: `https://xlcbingo1999.github.io/`