Xuhao Luo

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Education

University of Illinois Urbana-Champaign

Aug. 2021 - Now

Ph.D. Student in Computer Science

University of California San Diego

Sep. 2019 - Mar. 2021

M.S. in Computer Science, GPA: 3.82/4.00

University of Science and Technology of China

Sep. 2015 - Jun. 2019

B.S. in Applied Physics

Research Publication

- · Xuhao Luo, Ramnatthan Alagappan, Aishwarya Ganesan, SplitFT: Fault Tolerance for Disaggregated Datacenters via Remote Memory Logging (Eurosys 2024)
- · Xuhao Luo, Weihai Shen, Shuai Mu, Tianyin Xu, DepFast: Orchestrating Code of Quorum Systems (USENIX ATC 2022)
- · Zhiyuan Guo*, Yizhou Shan*(*co-first author), **Xuhao Luo**, Yutong Huang, Yiying Zhang, **Clio: A Hardware-Software**Co-Designed Disaggregated Memory System (*ASPLOS 2022*)

Experience

University of Illinois Urbana-Champaign

May. 2021 - Now

Research Assistant

Urbana, IL, USA

· See publications for detail

Amazon Web Service Applied Scientist Intern May. 2022 - Aug. 2022

Seattle, WA, USA

· Improved the reliability of the volume metadata updating workflow for AWS S3 volume metadata cache service.

Microsoft Research

Jun. 2020 - Sep. 2020 Beijing, China

Research Intern

- · Designed and implemented task scheduling and dispatching system for distributed machine learning using C++.
- · Designed and implemented **CUDA**-based high-performance inter-GPU communication channel for distributed ML within a large-scale GPU cluster.

University of California San Diego

Sep. 2019 - Dec. 2020

Research Assistant, advised by Prof. Yiying Zhang

La Jolla, CA, USA

- · Designed and implemented a go-back-N based reliable network stack on both FPGA and host Linux server to support high-performance reliable network communication. Using kernel-bypass to achieve high-throughput and low-latency.
- · Designed and implemented an RPC-semantic connectionless network stack to improve scalability, with a delay-based congestion control.

Agora.io

Jul. 2019 - Sep. 2019

Software Engineer Intern

Shanghai, China

· Participated in the development of CapSync, a distributed capability negotiation system for synchronizing media capability info between users, implemented with C++ and libevent.

Honors and Awards

• ASPLOS'22 Student Travel Grant	Feb 2022
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• USTC Class of 2019 Outstanding Graduates

May 2019

Services

• OSDI'23 Artifact Evaluation Committee May 2023

• USENIX ATC'23 Artifact Evaluation Committee

May 2023

Skills

Language C/C++, Python, Go, Java, Rust, Haskell, OpenCL, Verilog Tools/Framework TensorFlow, Docker, Zookeeper, LLVM, Google Test