

Weihei Shen

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PhD candidate in Computer Science with **4 years of full-time software engineering experience** (ByteDance/Baidu) and internships at **Google and ByteDance (TikTok)**, focusing on **distributed transactional systems, fast networks, and large-scale systems infrastructure**.

Education Background

Stony Brook University Ph.D candidate in Computer Science Advisor: Shuai Mu	NY, USA Aug. 2020 ~ May 2026 (Expected)
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Arizona State University Master of Computer Science, GPA: 3.89/4.0	AZ, USA Aug. 2018 ~ May 2020
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Nanjing University of Posts and Telecommunications Bachelor of Geographic Information System, GPA: 89.3/100	Nanjing, China July 2010 ~ June 2014
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Publications

Mako: Speculative Distributed Transactions with Geo-Replication (OSDI'25)

[Weihei Shen](#), Yang Cui, Siddhartha Sen, Sebastian Angel, and Shuai Mu

Topics: *Distributed transactional databases, DPDK, Efficient failure recovery*

Rolis: a software approach to efficiently replicating multi-core transactions (Eurosys'22)

[Weihei Shen](#), Ansh Khanna, Sebastian Angel, Siddhartha Sen, and Shuai Mu

Topics: *Fault-tolerance in multi-core in-memory databases*

DepFast: Orchestrating Code of Quorum Systems (USENIX ATC'22)

Xuhao Luo, [Weihei Shen](#), Shuai Mu, and Tianyin Xu

Topics: *Generic programming framework, Consensus protocols*

Professional Experience — 4 Years Full-time + Internships

ByteDance/Baidu/Ganji - Full-time Software development & data engineer	Beijing, China July 2014 ~ June 2018
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- ▷ Developed an intelligent ad platform by integrating multiple ad engines, managing thousands of keywords to significantly enhance user growth. (Bytedance)
- ▷ Implemented a real-time big data analysis platform using Apache Storm, Apache Flink, Apache Spark, and HBase, delivering scalable, near-realtime statistical data to users. (Bytedance)
- ▷ Designed and implemented a robust data warehouse using Apache Hive, enabling continuous monitoring and optimization of long-term user retention rates. (Bytedance)
- ▷ Built a big data tool to analyze application performance; delivered software solutions in PHP for the application and systems according to specific needs. (Baidu)
- ▷ Enhanced website search engine optimization (SEO); developed PHP software solutions to meet diverse application and system needs. (Ganji)

Google - Intern Software Engineer Intern, NetInfra Team	Sunnyvale, CA May 2024 ~ Aug 2024
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- ▷ Designed and implemented a 1:N networking multiplexing prototype in Libfabric to enable efficient communication between one endpoint and multiple shared QPs.
- ▷ Performed extensive RDMA isolation benchmarks with our RDMA-connected SmartNICs.

ByteDance (Tiktok) - Intern Summer Research Intern, Infrastructure System Lab	Mountain View, CA May 2021 ~ Aug 2021
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- ▷ Designed and implemented a prototype memory allocation and tracking engine for the next-generation HSAP database system, optimizing resource utilization and system performance.