# GUANZHOU HU

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## WORK EXPERIENCE

**Applied Scientist** (incoming) in Amazon S3 Team, Amazon Web Services — *Aug 2025 - Present*
- Starting soon — *Seattle, WA, USA*

**Applied Scientist Intern** in Amazon S3 Team, Amazon Web Services — *May 2024 - Aug 2024*
- Managers: James Bornholt, Andrew Warfield — *Seattle, WA, USA*
- Topic: Cloud Storage Systems & Automated Reasoning, Cloud Storage for AI Workloads

**Research Intern** in SOLAR Lab, CSST Program, UCLA — *Jun 2019 - Sep 2019*
- Advisors: John Thorpe, Prof. Guoqing Harry Xu — *Los Angeles, CA, USA*
- Topic: Affordable & Scalable Serverless ML Training Systems (awarded Outstanding Research)

## EDUCATION

**University of Wisconsin–Madison** — GPA: 4.00 / 4.00 — *Aug 2020 - Jul 2025*
Ph.D. in Computer Sciences — *Madison, WI, USA*
- Advisors: Prof. Andrea Arpaci-Dusseau and Prof. Remzi Arpaci-Dusseau
- Research area: Distributed Systems, Fault-tolerance, Cloud Infrastructure, Operating Systems
- Dissertation title: Cloud Consensus Protocols with Optimistic Connectivity

**Massachusetts Institute of Technology** — GPA: 4.00 / 4.00 — *Sep 2019 - Jul 2020*
Special Student in Electrical Engineering & Computer Science — *Cambridge, MA, USA*
- Honors: Overseas Study Scholarship (2019)

**ShanghaiTech University** — GPA: 3.90 / 4.00 — *Sep 2016 - Jul 2020*
B. Eng. in Computer Science & Technology — *Shanghai, China*
- Honors: President's Scholarship (2017, 2018), Dean's Scholarship (2019)

## PUBLICATIONS

**In submn.** [Title fuzzed] A consensus protocol achieving remarkably strong read semantics. G. Hu et al.

**In submn.** [Title fuzzed] A replication protocol for an unaddressed type of workloads. G. Hu et al.

**SIGMOD '26** Efficient Coordination for Autoscaling Cloud DBMS. (to appear)
W. Hu, G. Hu, M. Balakrishnan, X. Yu.

**FAST '23** MadFS: Per-File Virtualization for Userspace Persistent Memory Filesystems.
S. Zhong, C. Ye, G. Hu, S. Qu, A. Arpaci-Dusseau, R. Arpaci-Dusseau, M. Swift.

**OSDI '21** Dorylus: Affordable, Scalable, and Accurate GNN Training with Distributed CPUs and Serverless Threads.
J. Thorpe, Y. Qiao, J. Eyolfson, S. Teng, G. Hu, Z. Jia, J. Wei, K. Vora, R. Netravali, M. Kim, and G. Xu.

**FAST '21** The Storage Hierarchy is Not a Hierarchy: Optimizing Caching on Modern Storage Devices with Orthus.
K. Wu, Z. Guo, G. Hu, K. Tu, R. Alagappan, R. Sen, K. Park, A. Arpaci-Dusseau, and R. Arpaci-Dusseau.

**SC '20** BORA: A Bag Optimizer for Robotic Analysis.
J. Zhang, T. Xie, Y. Jing, Y. Song, G. Hu, S. Chen, and S. Yin.

**Preprint** A Unified and Practical Model of Non-transactional Consistency Levels in Distributed Replication.
G. Hu, A. Arpaci-Dusseau, R. Arpaci-Dusseau. arXiv 2024.

**Preprint** Foreactor: Exploiting Storage I/O Parallelism with Explicit Speculation.
G. Hu, A. Arpaci-Dusseau, R. Arpaci-Dusseau. arXiv 2024.

**Patent** A Storage System Management Policy Based on Data Content Locality.
S. Yin and G. Hu. 2019. CN. Patent number ZL 2019 1 0499391.9, licensed November 25, 2022.

## SERVICES & AWARDS

- ACM Student Member & ACM SIGOPS Member — *Sep 2021 - Present*
- Information & Computation Journal Reviewer — *Nov 2024*
- FAST '23 Student Travel Grant — *Feb 2023*
- FAST '22 External Reviewer — *Oct 2021*
- ASC Supercomputing Competition Second Prize (GeekPie_HPC team leader) — *Mar 2019*
- Artifact Evaluation Committee: OSDI '25, USENIX ATC '25, FAST '25, SOSP '24, OSDI '24, USENIX ATC '24

## TEACHING EXPERIENCE

**Teaching Assistant** at UW–Madison — *Fa 2020, Sp 2021, Sp 2025*
- Courses: Computer Architecture, Operating Systems, Advanced Distributed Systems — *Madison, WI, USA*

**Teaching Assistant** at ShanghaiTech University — *Sp 2018, Fa 2018, Sp 2019*
- Courses: Discrete Math, Computer Architecture, Operating Systems (awarded Outstanding TA) — *Shanghai, China*