

Runzhou Han

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Research Interests

- Large-scale storage systems
- Serverless computing
- Data provenance

Education

- **Iowa State University:** *Sept.2019-now*
Ph.D., Computer Engineering, advised by **Dr. Mai Zheng**.
- **Boston University:** *Sept.2017-Jan.2019*
Master of Science, Electrical and Computer Engineering.
- **Wuhan University:** *Sept.2013-July.2017*
Bachelor of Science, Physics.

Publication

- [1] **λ MDS: Scaling Distributed File System Metadata Service using Serverless Functions**
Benjamin Carver, Runzhou Han, Jingyuan Zhang, Mai Zheng, and Yue Cheng
To appear in Proceedings of the 29th ACM International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS), 2024.
- [2] **On the Reproducibility of Bugs in File-System Aware Storage Applications**
Duo Zhang, Tabassum Mahmud, Om R. Gatla, Runzhou Han, Yong Chen, and Mai Zheng
Proceedings of the 16th IEEE International Conference on Networking, Architecture, and Storage (NAS), 2022.
- [3] **PROV-IO: An I/O-Centric Provenance Framework for Scientific Data on HPC Systems**
Runzhou Han, Suren Byna, Houjun Tang, Bin Dong, and Mai Zheng
Proceedings of the 31st International Symposium on High-Performance Parallel and Distributed Computing (HPDC), 2022
- [4] **A Study of Failure Recovery and Logging of High-Performance Parallel File Systems**
Runzhou Han, Om R. Gatla, Mai Zheng, Jinrui Cao, Di Zhang, Dong Dai, Yong Chen, Jonathan Cook.
ACM Transactions on Storage (TOS), 2022.
- [5] **SentiLog: Anomaly Detecting on Parallel File Systems via Log-based Sentiment Analysis**
Di Zhang, Dong Dai, Runzhou Han, Mai Zheng.
Proceedings of the 13th ACM Workshop on Hot Topics in Storage and File Systems (HotStorage), July 2021.
Best paper nominee!
- [6] **Fingerprinting the Checker Policies of Parallel File Systems**
Runzhou Han, Duo Zhang, Mai Zheng.
IEEE/ACM Fifth International Parallel Data Systems Workshop (PDSW), Nov 2020.
- [7] **On Failure Diagnosis of the Storage Stack**
Duo Zhang, Om R. Gatla, Runzhou Han, Mai Zheng.
12th USENIX Workshop on Hot Topics in Storage and File Systems (HotStorage-P), 2020.
- [8] **Sound-mediated stable configurations for polystyrene particles**
Mudi Wang, Chunyin Qiu, Shenwei Zhang, Runzhou Han, Manzhu Ke, Zhengyou Liu.
Physical Review E, 2017.

Employment

- Iowa State University**, Ames, IA *Sept.2019-now*
 - Research Assistant
 - Advisor: Dr. Mai Zheng
- Samsung**, Santa Clara, CA *May.2022-Aug.2022*
 - Research Scientist Intern
 - Advisor: Dr. Yong Chen
- Lawrence Berkeley National Laboratory**, Berkeley, CA *May.2021-Aug.2021*
 - PhD Research Intern
 - Advisor: Dr. Suren Byna

Selected Awards

- Student Grant, ACM *HPDC 2022*. *July.2022*
- Student Grant, USENIX *FAST 2022*. *Feb.2022*
- Student Grant, USENIX *FAST 2020*. *Feb.2020*
- Wendell Miller Scholarship, Iowa State University. *Sept.2019*

Invited Talks

[1] **Improving Storage Reliability and I/O Observability in High-performance Computing Systems.** IBM Research, Virtual, *Mar. 2023*.