Sakib Samar

sakib.samar@outlook.com | (612) 669 – 7587 | Minneapolis, Minnesota | www.sakibsamar.com

Software engineer building distributed storage systems and control planes for large-scale AI training and inference, with experience in Lustre and DAOS, API design, and reliable services in Go and Python at scale.

Experience

Hewlett Packard Enterprise (HPE), Software Engineer | June 2022 – Present | Minneapolis, MN

- Built Go REST APIs, with DMTF Redfish and SNIA Swordfish, for a multi-tenant storage control plane managing DAOS clusters at 10,000+ node scale, with authentication, role-based access, and etcd backed state.
- Led HPE's first two MLPerf Storage submissions on Lustre, with the latest sustaining 160 GB/s across 96 accelerators for AI training workloads, helping define industry-standard storage benchmarks for large-scale AI.
- Implemented Lustre hybrid I/O in HPE's ClusterStor release, adding dynamic buffered-to-direct I/O promotion with tunable size thresholds and submission concurrency to raise sequential read throughput for AI training data loading.
- Designed and developed an event monitoring and alerting pipeline aggregating events across all DAOS services and nodes, integrating Grafana, OpenSearch, and HPCM logging to run automatically in the background, cutting incident response time by 90%.
- Built node provisioning orchestration via the Redfish API, executing bare-metal workflows such as BIOS configuration, certificate distribution, service deployment, and health verification, across distributed nodes.
- Cut platform upgrade time 40% by architecting coordinated rollouts across system and service layers in a multi-cluster Kubernetes storage platform.
- Built fault-tolerant multi-step workflows distinguishing retryable, fail fast, and continue on warning failures, with compensating rollback that unwinds completed steps on error.
- Designed and implemented hypervisor node replacement in a multi-platform storage cluster, enabling hundreds of node swaps with minimal downtime.
- Enabled unit testing of hardware-dependent workflows via injectable command interfaces and deterministic mocks, without requiring physical clusters.

Entrust Corporation, Software Engineer Co-Op | February 2022 – June 2022 | Minneapolis, MN

- Built a smartcard profile token tool in Java, extending certificate lifetime and authentication for existing users.
- Refactored build dependencies and artifacts, reducing webservice build time by 22%.
- Migrated logging from Log4j to Logback, remediating a critical logging security vulnerability.
- Implemented input validation reducing authentication latency in the smartcard service.

GAOTek, Software Development Intern | November 2021 – January 2022 | New York, NY

- Developed server-side services to support corporate client applications running on Android devices.
- Built a recommendation service suggesting related offerings based on customer profiles.

Minnesota State University, Machine Learning Research Assistant | October 2021 – May 2022 | Mankato, MN

- Implemented the Laguerre-Gauss algorithm in Python to model orbital angular momentum (OAM) states.
- Applied machine learning techniques in Python to analyze simulation data for parallel optical processing.

Publications and Talks

AI/ML Benchmarking and Lustre, Keynote, Lustre User Group (LUG) 2024 at Texas Tech University
MLPerf Workload I/O Patterns: Is Hybrid I/O the Right Choice? Co-author, LUG 2025 at Stanford University
E2000 Performance: From Microbenchmarks to Applications, Co-author, Cray User Group (CUG) 2025 at SUNY

Technical Skills

Languages: Python, Go, Java, SQL
Backend and APIs: REST API design, JWT auth, RBAC, OData pagination/filtering, async orchestration
Distributed Systems: Etcd, optimistic concurrency control, distributed consistency, fault-tolerant state machines
Storage & Infrastructure: Lustre, DAOS, Redfish/Swordfish, NFS/S3 gateways, Kubernetes, Docker, Linux
Observability: Prometheus, Grafana, OpenSearch
Practices & Certifications: CI/CD (Jenkins), Agile/Scrum, CKA, IBM Full Stack Cloud Developer
Agentic AI Development Tools: Claude Code, Cursor, GitHub Copilot.

Education

Minnesota State University, Mankato | B.S. in Computer Information Technology | Minor: Mathematics *(Graduation-2022)*
University of Nebraska – Lincoln | B.S. in Computer Science | Minor: Mathematics (2017 – 2020)