

RAKSHITH S

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EXPERIENCE

Siemens Healthineers

Bangalore, India

Software Engineer 1

July 2023 – Present

- **Built high-performance microservices** in **C++/Go** interoperating with **Java** services; optimized concurrency and memory to lower latency by **25%**.
- **Implemented resilience patterns** like circuit breakers and retries, ensuring consistent system availability and data integrity under high load.
- **Enhanced multi-tenant data path** with **MySQL** tuning and **Redis** caching; increased throughput by **40%** for large datasets.
- **Integrated distributed tracing** and built CLI tools to cut debugging time; **mentored** junior engineers on profiling and incident response.
- **Supported containerized microservices** deployments on Linux/Azure and drove Agile delivery
- **Integrated object storage (AWS S3/Azure Blob)** with multipart uploads and checksum validation; increased sustained ingest throughput by **35%** and reduced transfer errors by **50%**.
- **Implemented idempotent ingestion handlers** with **retries/backoff** and deduplication keys to ensure reliable processing under failures; lowered duplicate processing by **90%** and improved recovery robustness.

Siemens Healthineers

Bangalore, India

Software Engineer Intern

February 2023 – July 2023

- Developed **REST APIs** and data models (C#) with **MySQL/Redis**; contributed to ingestion/validation modules and unit/integration tests.
- Automated developer workflows and CI tasks; participated in **code/design reviews**; achieved **60%** process time savings and **mentored** interns; adhered to **Agile** methodology.

SKILLS

Languages: Java, C++, Golang, C#, Python, SQL, Bash, PowerShell, C

Cloud & Tools: Docker, Kubernetes, AWS/Azure, CI/CD, Linux/Windows, Agile/SDLC, System Design

Distributed Systems: Consistency Models, Sharding, Replication, Consensus Protocols, Fault Tolerance, Microservices

Storage & Data: PostgreSQL, Redis, File Systems (NFS/SMB), Object Storage, Deduplication, Data Protection

High Performance: Multithreading, Lock-free Data Structures, Async I/O, Memory Management, Profiling

PROJECTS

High-Frequency Order Matching Engine ([Github](#)) | C++, Docker, AWS

- Engineered a low-latency trading engine in **C++** using **lock-free data structures** and custom memory management to minimize GC pauses; achieved sub-millisecond execution times.
- Devised **multithreaded** architecture for concurrent order processing; containerized with Docker for scalable deployment and integrated resilient network I/O with retry policies.

Secure Distributed Storage Utility ([Github](#)) | C++, Python, AES

- Built a secure file storage utility incorporating **AES-256** encryption and block-level deduplication; constructed chunked file processing for handling large datasets efficiently.
- Crafted modular key management and robust error handling for data integrity; refined byte-level I/O performance for high-throughput file operations.

EchoLens – Code Analysis Tool ([Live](#) | [Github](#)) | AI, ML, 3D Visualization

- Created an AI-powered platform that predicts risks, detects technical debt, and visualizes dependencies; deployed ML-based hotspot prediction and semantic commit analysis.
- Developed pipelines for repository analysis; contributed to **architecture/design reviews**; delivered dashboards to guide refactoring and evaluation workflows.

EDUCATION

National Institute of Engineering

Mysore, India

B.E in Electronics and Communication Engineering

August 2019 – July 2023

- Coursework: Computer Networks, Computer Architecture, DBMS, Big Data, Machine Learning, DSA, REST API.
- Language fluency: Kannada, English, Hindi.

CO-CURRICULARS

Xstasis Dance Group: Siemens Healthineers. | **Project Head:** UCSP Research Group, NIE. | **Marketing Head:** Onyx E-Cell, NIE.