

MAYANK

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EDUCATION

Dronacharya College of Engineering Gurugram, Haryana 2024 - 2028
Bachelor of Technology in Computer Science and Technology *CGPA: 8.0*
Relevant Coursework: Data Structures, OOP, DBMS, Operating Systems

PROJECTS

KVS (*Go*) github.com/ohmayank/kvs

- Built a persistent key-value store in Go using a Write-Ahead Log (WAL) for durable storage and crash recovery.
- Implemented WAL replay and automatic log compaction with configurable durability (fsync) options.
- Developed a thread-safe storage engine supporting concurrent reads and writes, verified with Go's race detector.
- Built an interactive CLI supporting CRUD operations and configurable WAL file paths.
- Configured GitHub Actions to automatically run formatting checks, go vet, unit tests, and race detection on every push and pull request.

Hako (*Go, Linux*) github.com/ohmayank/hako

- Built a reliable file ingestion service in Go that atomically transfers files using temporary files and atomic rename operations.
- Implemented a persistent local queue with automatic retries and configurable backoff to recover from transient transfer failures.
- Ensured crash safety through file and directory fsync, atomic writes, and graceful shutdown via OS signal handling.
- Designed a modular architecture separating storage, transfer, queue, and worker components using idiomatic Go and context propagation.
- Integrated a continuous integration workflow to execute automated unit test suites and validate cross-platform build stability on every code push.

TECHNICAL SKILLS

- **Programming languages:** Go, C, C++
- **Databases:** PostgreSQL, Cassandra, MySQL
- **Dev Tools:** Git, Github, Linux, Podman, Docker, Kubernetes