



# Choi Seokwon

최석원 /sʰə(ː)k wʌn t͡ɕɪ/

## Backend & Platform Engineer

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[github.com/Alfex4936](https://github.com/Alfex4936) ↗ [alfex4936.github.io](https://alfex4936.github.io) ↗ [choiseokwon.tistory.com](https://choiseokwon.tistory.com) ↗ [LinkedIn](#) ↗

### SUMMARY

I build and operate managed database platforms with Go and Kubernetes. My work centers on operators and control planes, performance tuning grounded in Redis internals, and release pipeline automation. I measure bottlenecks and undocumented limits rather than guess at them, and leave the results behind as tooling.

### SKILLS

|            |                                                                           |
|------------|---------------------------------------------------------------------------|
| LANGUAGES  | Go · Python · Java · C · Rust                                             |
| INFRA      | Kubernetes · Helm · ArgoCD · Ansible · Prometheus/Grafana · OpenTelemetry |
| DB/CACHE   | Redis · MongoDB · MySQL                                                   |
| FRAMEWORKS | Echo (Go) · Fiber (Go) · FastAPI · Spring Boot · React                    |

### EXPERIENCE

LINE

LINE PLUS

2025.09 – Present

DBaaS DevOps · Full-time · Seongnam-si, South Korea

Managed Redis and MongoDB services on the company's private cloud platform; 24/7 on-call rotation

- Sole designer and implementer of an access control and audit logging module (C, Redis 7.2+) for a compliance environment. Drove the design to sign-off with the security audit org; its **27** audit event types and **301**-command classification became their spec baseline. WAL-backed logging removes loss under burst traffic, with hash-chain tamper detection
- Develop and operate the Go-based Kubernetes operator. Redesigned the service phase-evaluation path so List calls no longer scale with shard count: **373** down to **4** on a **20**-shard service, pinned by a regression test. Split the state machine into Service/NodeGroup/Node tiers, removing false failure states on healthy services and a double-reconcile bug on manager rollout
- Generated the platform CLI's commands for **6** database products (Redis, MongoDB, MySQL, PostgreSQL, Cassandra, OpenSearch) from SDK/OpenAPI specs, designed as an agent-drivable contract (manifest, JSON output, read-only by default). The CLI owning team adopted it as the recommended path, with matching Agent Skills shipped alongside
- Rebuilt a stalled E2E test framework to cover **90%** of user APIs and **50%** of admin APIs with real API calls, running daily in CI with results posted to Slack, later extended to targeted per-PR runs
- Single-handedly stood up the Redis control plane for a new Japan region: VPC, subnets and network ACLs, the Kubernetes cluster, operator deployment, OpenTelemetry observability, and ArgoCD-based GitOps
- Built an MCP server that exposes monitoring metrics and logs to an LLM for first-pass alert triage, plus other internal MCP servers and Agent Skills published to the company's internal marketplace

 **YTChatX**

2025.02 – 2025.03

Real-time YouTube Live Chat Analysis Website · Personal Project (Fullstack)

- Collected up to **1,677** chat messages per second from a **30K**-viewer livestream with Playwright-driven scrapers
- Cut scraper memory **65%** and scaled to **50+** concurrent crawlers (**3×** the previous ceiling) by replacing Playwright with a Rust + Chromiumoxide scraper
- Batched ingest at **2,500** messages per **10**-second window with Redis pipelining and RSemaphore, bounding resource use under bursts

STACK Spring Boot · Java · Redis · Playwright · PostgreSQL · WebSocket · Rust · React

[GitHub ↗](#) [More ↗](#)

 **k-pullup**

2024.02 – Present

Pull-up bar map of Korea on Kakao Map API, live with MAU **4,000** · 1 BE, 1 FE (Backend Lead)

- Cut MySQL spatial query cost **66×** and response time **85%** by reworking the geospatial queries
- Cut Korean profanity filtering from **4,858ms** to **1.1ms** on **10KB** of text with a Double Aho-Corasick matcher
- Sustained **TPS 3,548** with **1,000** concurrent users and **1M** messages over **5** minutes on a Redis-backed WebSocket chat

STACK Go · MySQL · Redis · RabbitMQ · Uber Fx · Bleve · Grafana · Locust

[GitHub ↗](#) [Website ↗](#) [More ↗](#)

 **BeautyMinder**

2023.09 – 2023.12

Comprehensive cosmetics management app based on Baumann skin type test · 1 BE, 4 FE (Backend Lead)

- Raised search accuracy **35%** with AWS OpenSearch and N-gram analyzers
- Cut search response from **5s** to **2s** at **500** concurrent users, guided by ELK Stack monitoring
- Reached **82%** test coverage with JaCoCo and cut DB load **40%** with Redis caching

STACK Java · Spring Boot · Flutter · MongoDB · ELK Stack · Redis · AWS OpenSearch · JaCoCo

[GitHub ↗](#) [Presentation ↗](#)

OTHER PROJECTS

GoWave, automated crypto trading  
(2025.04 – 2026.01)

[GitHub ↗](#)

Ajou University KakaoTalk Chatbot (2022)

[GitHub ↗](#)

Ajou University AI Library Search (2022)

[GitHub ↗](#)

Rust Language YouTube Tutorial (2023)

[YouTube ↗](#)

EDUCATION

**Ajou University** · Bachelor of Computer Science

2017.03 – 2024.02

**OPIc Advanced Low (English)** · ACTFL

2025.05