

DAE-SEON YOO

Software Engineer | +1 (548) 993-4588 | showep12@gmail.com | Toronto, ON | [LinkedIn](#) | [GitHub](#) | [WebSite](#)

PROFESSIONAL SUMMARY

Software engineer with 6 years modernizing complex production systems and shipping measurable results — 60% faster processing, reprocessing cut to near zero, a 7.7K-line core query reduced 57%. Deep in API and data-layer design, transaction integrity, and concurrency/reliability across distributed multi-server systems; works across Java/Spring, C#/.NET, and SQL/PL-SQL (Oracle, PostgreSQL). Now building Spring services and LLM-powered developer tools.

TECHNICAL SKILLS

Languages : Java, Python, SQL/PL-SQL, C#, TypeScript

Backend / Frontend : Spring Boot, JPA, FastAPI, REST APIs, .NET / Next.js, React

Databases : PostgreSQL, Oracle

Infra / Tools : Docker, Git, Linux, AWS, CI/CD (Github Actions), JUnit

AI / LLM : Claude & Gemini API, prompt engineering, async LLM pipeline

WORK EXPERIENCE

Software Engineer | SK AX

Sep. 2021 - May. 2026

- Built a reverse proxy with a reflection-based RPC dispatcher consolidating 40 middleware endpoints into one, deployed across **8 sites** — **freeing 1 FTE** of middleware development by eliminating redeployments.
- Redesigned transaction boundaries between manufacturing operations and financial systems using a staging-table and batch-worker pattern, cutting processing time by **60%** and reducing reprocessing from **20 monthly cases to near zero**.
- Refactored a **7.7K-line** monolithic CASE-based PL/SQL query into per-process CTEs (**57% reduction**), isolating 5 sub-processes so changes no longer cascade — raising weekly cost-ledger ticket throughput from **4 to 7**.
- Resolved HTTP 413 errors on mobile WMS scans without infra changes using PK-only payloads with fresh-state retrieval, raising scan batch size from **30 to 60** and keeping inventory accurate.
- Designed a Template Method + dynamic-factory architecture so regional teams override site-specific logic over a shared core workflow, **scaling to 8 sites** with no added central headcount.
- Eliminated cross-server duplicate execution with a distributed lock (ShedLock/job_lock table), and decoupled the scheduler from execution via @Async so both plant closes run in parallel.
- Resolved duplicate ID generation across multi-instance manufacturing execution services by implementing Oracle row-level locks (FOR UPDATE), preventing data anomalies and manufacturing downtime.

Software Developer | Dure Info

Jun. 2020 - Sep. 2021

- Resolved XML deserialization failures from partial TCP reads by implementing application-level message framing — buffering incoming bytes until a complete delimiter-terminated message arrived.
- Contributed to a multi-client TCP socket server (Windows Service) brokering DB access for PC/PDA/Kiosk clients — thread per connection, dispatch by client type, stored procedures run server-side so clients never held DB credentials.

PROJECTS

TubeShadow — YouTube-clip language shadowing trainer | Spring Boot · Next.js · PostgreSQL · AWS [GitHub](#) | [Demo](#)

- Async event-driven LLM analysis pipeline (Spring AFTER_COMMIT + @Async) running provider calls outside DB transactions to avoid connection-pool exhaustion; PENDING→READY/FAILED state machine.
- Runtime-selectable LLM provider interface (Claude/Gemini) for vendor independence; cut cost via result persistence + YouTube captions instead of Whisper STT.

Dalkkak — multi-pane macOS terminal for AI coding agents | Rust · Tauri · React · tmux [GitHub](#) | [Demo](#)

- PTY panes (portable-pty), each backed by a per-pane tmux session that survives app restarts; robust tmux-path resolution for a macOS GUI app's minimal PATH
- Decoupled terminal state from the React lifecycle via async Rust↔JS IPC, surviving remounts without process-state loss.

EDUCATION

M.S. & B.S. in Industrial Engineering

Mar. 2012 - Feb. 2019

Kumoh National Institute of Technology, Gumi, South Korea