

SKILLS

Java; TypeScript/JavaScript; Python; SQL • Spring Boot; Spring Batch; REST • PostgreSQL; Oracle • React • SonarQube
Gitlab • Jenkins • AWS (CloudWatch, ECS, EC2, S3, Route 53, CloudFormation, AWS Batch, AWS Connect, Terraform)

WORK EXPERIENCE

EMPOWER, BANGALORE (*Software Engineer*) Aug 2023 – Present

SPRING BOOT REST APIs/SQL

- Designed an append-only **double-entry ledger** with reversal-only corrections, **single-sided posting protection**, and idempotency on write; supports negative balances (overdraft); **reconciled 3.2M postings/90 days**
- Reduced a heavy **MERGE** on a **17M+ row** table **>80s -> <1s** by pre-aggregating in one scan, streaming a ~100k subset to the service, matching in-memory, then **batch-updating—no temp tables or full rescans**
- Delivered **exactly-once** parallel remittance processing with enqueue-on-write, **SKIP LOCKED** workers, bounded retries, and **@Transactional** all-or-nothing commits—**zero double-consumes**
- Implemented **keyset pagination** over **1M+ rows** using stable sort keys + composite indexes; eliminated **OFFSET** scans and used **concurrent prefetch** to keep **page-to-page <120ms**

SPRING BATCH

- Engineered a **Spring Batch pipeline** around an external client API with **chunk-oriented** steps, rate limits/backoff, and **multi-DB** reads/writes; processed **2,000+ rows <30s**; restart via parameters/checkpoints
- Parallelized a per-remit API using partitioned steps and bounded queues, cutting **3s/remit to 0.6s for 4 remits** by eliminating request-per-remit bottlenecks
- Scaled to **3,000 remits/<6 min** and **45k inserts** by tuning commit intervals, partition sizes, and **JDBC batch updates** to reduce DB round-trips
- Hardened failure handling with bounded retries/skip rules, consolidated CSV error reporting, and auto-alerts; **safe restarts** without duplicate effects via idempotency and checkpointing

REACT UI - Oracle Forms Modernization

- Modernized an Oracle Forms app into a React dashboard with **keyset pagination**, predictive prefetch, and a **1k LRU window** to dedupe/merge updates—delivering **smooth infinite scroll @60 FPS** across **1M+ records**
- **Preserved scroll position** across async data refreshes using **viewport caching** and restoration, ensuring stability during row recycling
- Sustained **sub-50ms** interactions via **virtualization**, intelligent **caching**, and batched state updates to minimize DOM churn
- Added **Oracle-style keyboard shortcuts** (refresh, reset, restore criteria) and safe paging suspend/resume to prevent background fetches from interrupting active input

OPS/QUALITY/AWS

- Maintained **98%+ SonarQube coverage** with **0 new issues**; adhered to **SRP/OOP** with consistent naming/class boundaries; triaged production via **CloudWatch Logs Insights/ECS task /AWS Batch** job states (**read-only ops**)
- Debugged **Terraform plan outputs** and CloudFormation stack events for API deployments, **resolving misconfigurations** and validating resource creation across ECS, S3, and API Gateway

INTERNAL HACKATHON

- **Prototyped, in 72 hours**, a Python-based anomaly detector for **AutoSys** job runtimes using historical execution data, with **automated email alerts** for jobs that failed to start within job-specific time windows.

INTERNSHIP

NATIONAL ILAN UNIVERSITY, TAIWAN (*Research Intern*)

Apr 2023 – Jul 2023

PyTorch, Computer Vision, CNNs, Pose Estimation, Deep Learning, Feature Extraction, Transfer Learning

[Research Paper](#)

- **Built** a pose-based serve classifier from broadcast matches using **YOLOv8 Pose → 20-frame keypoint series → SVM**; on **127 sequences; 80/20 split**, achieved **68.46% avg accuracy over 20 runs** (variance **50–90%**)
- **Preprocessed** with **Savitzky–Golay smoothing** (window 11, poly 2) and manual cropping to isolate the server; extracted **6 features/frame** (wrist/elbow/shoulder x,y)

EDUCATION

Aug 2019 – Jul 2023

Bachelors of Technology, Computer Science and Engineering : 8.16 CGPA