Vernon Wee Hong KOH
Senior Backend Engineer · Singapore
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SUMMARY

Senior backend engineer with 11 years in software, 9+ of them in backend, and expert in Java and Spring Boot. Proven record consolidating one-off integrations into reusable, versioned services in a regulated bank, building event-driven integration on Kafka, and delivering SaaS API integrations across payments, commerce and AI. Hands-on coder and technical lead who owns estimation, design, delivery and operations.

SKILLS

Language and Framework	Java and Spring Boot (expert), JPA / Hibernate, C# .NET Core, Go, TypeScript, Kotlin, React, Next.js
Integration and API	RESTful API design, GraphQL, Versioned integration contracts, JSON, HTTP/SSL, OAuth 2.0 and OpenID Connect (Keycloak, Cognito), SaaS APIs (Stripe, Shopee, OpenAI, Kofax)
Messaging and Architecture	Microservices, Kafka event publishing, AWS SQS/SNS pipelines, Retry workers, Batch processing, Fault-tolerant design, CQRS, Clean Architecture
Data, Cache and Search	PostgreSQL, MySQL, MongoDB, Redis caching, OpenSearch (Elasticsearch-compatible), S3
Cloud and Delivery	AWS, Google Cloud, DigitalOcean, Docker, Linux, Jenkins, SonarQube, CloudWatch, Cloudflare
Delivery and Data Quality	Requirements refinement, High-level estimation (HLE), Infrastructure and database design, Code review, Data cleansing and root-cause analysis, AI-assisted development
Spoken Language	English (fluent), Mandarin Chinese (fluent)

EXPERIENCE

Software Engineer
DBS Bank
Apr 2020 – Present

Drive client onboarding workflows in the Discretionary Portfolio Management (DPM) team for Treasures Private Client, DBS's most premium customer tier, powering the journey to a new portfolio application, and delivered **4 end-to-end workflows in 5 months** with a lean team of 5 developers.

Built DPM's event-driven integration on Kafka, publishing every platform activity, including account openings, messages and updates, as events for downstream systems to consume, keeping them in sync without tight coupling.

Partner directly with business stakeholders to sharpen requirements into buildable scope, then own high-level estimation (HLE), infrastructure planning and database design, safeguard quality through code review, and step up as acting project lead whenever the team lead is away.

Set the team's engineering standards for testing, CI/CD and code quality on Jenkins and SonarQube, and mentor junior engineers through code review, design review and pairing.

Own operational reliability for DPM integrations, using CloudWatch monitoring and audit logging, leading incident response, running data sanity checks and cleansing, and pinpointing the root cause of cross-system misalignment with hard evidence.

Previously architected integration APIs for a regional banking platform in India and Taiwan, consolidating one-off integrations into reusable Java and Spring Boot services with versioned integration contracts and market-specific authentication and access control, and shipped production

integrations for staff-assisted banking journeys through automated regression, rigorous peer review and phased rollout in a highly regulated environment.

Transformed reporting services with Kofax digital signature integration, slashing APAC setup effort by **30%** and collapsing document turnaround from **hours to seconds**, and standardized API consumption patterns adopted by **5+ teams**, eliminating duplicated integration code.

Full-Stack Developer
IPI Singapore
May 2018 – Apr 2020

Accelerated operational responsiveness by **60%** by engineering a Go batch-processing backend that eliminated manual routing, exposing explicit REST integration points for downstream teams.

Built and operated the backend for project tracking and invoicing, replacing fragmented email and spreadsheet coordination with a single system of record for status and billing.

Full-Stack Developer
Blissbox Pte. Ltd.
Jul 2017 – Apr 2018

Architected and launched a commerce backend on Google Cloud (Laravel, MySQL) with Stripe payment processing in just **3 months**, sustaining **99.9%** uptime and fully digitizing the client's sales and payment path.

Web Developer
WizWerx Pte. Ltd.
Sep 2015 – Jul 2017

Delivered PHP web solutions for SME clients from requirements to go-live, consistently on schedule and aligned to client branding and conversion goals.

PROJECTS

Wrapsfer
(3PL platform, in development)

Building solo, from scratch, a multi-tenant 3PL fulfilment and order management platform for Southeast Asia on Spring Boot 4, PostgreSQL and React, integrating the Shopee, Lazada and TikTok Shop APIs to pull orders and push live stock, with Cognito identity, audit logging and Stripe subscription billing, sized for 10,000 orders a day.

Life Poem
(storytelling app, in a university research study)

Architected and launched the backend API for a storytelling app for older adults adopted in a Singapore university research study, integrating the OpenAI API for AI companion conversations and story illustration, with Dockerized SIT and production environments and controlled release promotion, and engineered research-grade privacy and compliance controls: aggregate-only researcher dashboards, pre-provisioned study accounts, 30-day data deletion and 72-hour breach notification.

Enquiry Triage and Routing Proof of Concept

Architected an enquiry intake, triage and routing proof of concept for a wine distributor in .NET with Clean Architecture and CQRS, including a data masking module that protects sensitive customer data.

Full-Text Search for PDFs on AWS

Engineered a production-grade search backend in C# .NET with CQRS, orchestrating document extraction through an SQS/SNS event pipeline with resilient retry workers, S3 storage and fuzzy, faceted OpenSearch queries, hardened with Cognito and CloudWatch.

Upmatches
(sold, since sunset)

Single-handedly owned the shared REST APIs powering the web, Android and iOS clients of a Singapore badminton platform, from service design to production support, carrying the product through to a successful sale.

AWARDS

DBS Recognition for Outstanding Performance, DBS Paradigm Shift Global Hackathon (Team 1206) 2019

EDUCATION

Campbell University, North Carolina 2012 - 2014
B.S. in Information Technology

Tunku Abdul Rahman University College, Malaysia 2012 - 2014
Advanced Diploma in Internet Technology cum BS Degree