

# Wilson, Chow Sin Long

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Full-Stack Software Engineer · AWS Solutions Architect Associate

## SUMMARY

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Full-stack software engineer with 5 years delivering medium-to-large production initiatives in a fast-paced, multi-client environment — Figma through React / React Native, Node.js, typed APIs, and AWS deploy. Zero-to-one and multi-year evolution of **15+** apps, including App Store / Play Store releases. Cut critical-path load times by up to **80%** and search latency by **90%**. Currently leading a multi-channel Generative AI agent platform with durable, interruptible workflows, memory, RAG, scorers, and evals. Daily workflow includes Cursor / AI-assisted development. AWS Solutions Architect Associate.

Strengths: End-to-end delivery · Auth · Typed APIs · Production AI agents · AWS

## EXPERIENCE

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### Full-Stack Engineer, Vioo Company Limited

May 2022 – Present

Primary engineer for concurrent client products — design through cloud deployment, partnering with technical and non-technical stakeholders to scope UX and ship reliable, usable production releases.

- Shipped and maintained **15+** production React / React Native apps from zero-to-one and over multiple years, including high-fidelity Figma design, shared design systems, and App Store / Play Store releases.
- Replaced a third-party WordPress stack with an in-house headless CMS (Strapi / Sanity) and search (Meilisearch / Algolia) in a Turborepo, deployed with SST, so publishing continued through the transition: cut load time by **80%**, search latency by **90%**, and hit PageSpeed Insights **>90**. Dockerized Node.js APIs and ran them on ECS Fargate; other workloads on Lambda / API Gateway. Familiar with Kubernetes from AWS Solutions Architect study; production containers are Docker on ECS, not self-managed K8s.
- Shipped production AI agents (workflows, memory, tool calls, observability, evals) with Mastra, Vercel AI SDK, and Langchain.
- Established shared Radix / Tailwind component and hook libraries with Storybook, Fumadocs, and MDX docs, reused across client apps. Vitest / Cypress on critical flows.
- Modeled identity against a typed API: Better Auth sessions and org membership, OAuth 2.0 / OIDC, JWT / session lifecycle, and RBAC. Sessions live in HttpOnly / Secure / SameSite cookies, not localStorage tokens.
- Modeled Postgres data with Drizzle / Prisma — SQL schemas, migrations, org-scoped tables, and RBAC — so access is enforced in the data model, not only in route handlers. DynamoDB / S3 where the access pattern fit.
- Built typed Node.js APIs with Hono, OpenAPI, and tRPC on AWS Lambda / API Gateway, with Scalar docs.
- Hardened the edge: strict CORS, trusted origins, WAF rate limits on auth routes, identity from the authorizer cookie — never a client-supplied user header. API keys, tokens, and credentials in SST Secret, not .env.
- GitHub Actions + SST for CI/CD — lint, typecheck, tests, and build before deploy — cutting deploy time by **50%+**.
- Mentored summer interns and junior developers through pairing, code reviews, and shipping production work.

## SELECTED PROJECTS

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### Multi-Channel Agentic Platform

Apr 2026 – Present

Client-facing agent platform for durable, multi-channel assistants (web + Discord).

- Modeled each agent run as a stateful, interruptible, resumable durable stream: clients disconnect, reconnect, and resume mid-run without losing progress — not nested chat conditionals.
- Built workflow, memory, scheduling, and workspace primitives on Mastra and AI SDK: pause/resume, retries, sandboxed tools, and skills.

- Shipped end-to-end RAG (ingest, chunk, Pinecone query/rerank) and gated releases on scored evals (golden prompts + LLM-as-judge).
- Ran Dockerized Hono + Better Auth on ECS Fargate, with Postgres for core data, S3 for files, and ClickHouse for run/tool traces and cost/latency — diagnosing issues across UI, API, and agent components.
- Shipped composable chat, tool-invocation, and multi-step client flows, plus a TipTap @mention file-tagging component for attaching workspace files into prompts.

## High-Performance Marketing Site

Nov 2025

Lead engineer for a content + search marketing site — performance, CMS, and publish workflow.

- Next.js + Strapi + Meilisearch with **LCP < 0.5s**, **CLS < 0.1**, and PageSpeed Insights **>90**.
- Chose hybrid ISR (build the main pages and latest 100 articles; rest on demand) plus Strapi webhook revalidation so publishes skip a full rebuild.
- Accessibility and SEO as ship criteria; custom Strapi plugin for generative AI content via AI SDK.
- Orchestrated interactive and multi-step flows with TanStack Query prefetch/hydration and TanStack Form + Zod; locale-aware routing, copy, and date/number formatting on client content sites.

## React Native Membership Platform

Shipped Apr 2024

- Led Figma design and the membership app; shipped iOS and Android to the App Store and Play Store. Also maintained the Express API and Next.js admin.
- Diagnosed production crashes, device compatibility, and performance bottlenecks independently via Sentry across app and API; maintained **99%** crash-free sessions post-launch.
- Cut list jank with FlashList, tab freeze, and cached feed images. Push + deep links via Firebase Cloud Messaging for promos and milestones.

## OTHER WORK

Loyalty and membership apps, CMS content sites, Shopify storefronts, a health/wellness RAG agent, and an RBAC resource system — mostly Next.js / React Native.

## SKILLS

**Languages:** TypeScript, Node.js, SQL

**Frontend:** React, Next.js, React Native, Expo, TanStack Query, TanStack Form, Tailwind CSS, shadcn/ui, Storybook, Figma, TipTap

**Backend:** Hono, Drizzle, Prisma, OpenAPI, tRPC, GraphQL, Postgres, DynamoDB, Better Auth, Multitenancy

**Auth & i18n:** OAuth 2.0 / OIDC, JWT, HttpOnly cookies, CORS, RBAC, next-intl

**AI:** Mastra, Vercel AI SDK, Langchain, Pinecone, Strands, AWS Bedrock

**Testing & monitoring:** Cypress, Vitest, React Testing Library, Lighthouse, axe, Sentry, PostHog

**Workflow:** Cursor, Claude Code

**DevOps:** SST, Docker, ECS Fargate, GitHub Actions, AWS, Turborepo · Kubernetes (familiar)

## QUALIFICATIONS

- AWS Solutions Architect Associate, 2026
- AWS Cloud Practitioner, 2025

## EDUCATION

### University College London

2016 – 2020

- MPharm Pharmacy — First Class Honours
- Career switch from pharmacy — a regulated, high-stakes domain — after finding a passion for building apps and systems