

Lester Cheong

AI-augmented Software Engineer

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Summary

AI-augmented software engineer who operates systems end-to-end. Builds with TypeScript, PostgreSQL, and Railway. Serves small businesses directly — the same person who ships is the one on-call.

Experience

Freelance Software Engineer

Self-employed | Jan 2025 – Present

- 3 paying clients. Delivered a Telegram-based order management system (24-26 daily users, PostgreSQL, role-based access, CRON reports) with real-time SSE push notifications to sales dashboard and message queue throttling with coalescing to respect Telegram rate limits and acknowledge user messages during busy periods
- Built a full event activation platform for a local marketing company (SvelteKit, Fastify, PostgreSQL, Redis, Replicate AI, Twilio) — consulted, delivered, maintained, and decommissioned. 9 interactive stations including Snake, claw machine, spot-the-difference, AI avatar passport kiosk, SMS authentication, QR check-in, and admin dashboard. Deployed live with on-site support throughout event duration. Optimized AI generation pipeline during the event via parallel model execution and streaming downloads — reduced generation time by ~67%.
- Delivered static display sites (company landing page + restaurant PWA) alongside larger projects
- Sole operator on all systems: CI/CD, monitoring, on-call, infrastructure
- All production backends deployed on Railway (Fastify, PostgreSQL, zero-downtime deploys)

API Developer, Digital Channels & OpenBanking

OCBC Bank | Mar 2022 – Sep 2024

- Started as IGNITE apprentice — built a Node.js CLI that parses Postman collections, auto-generates assertion tests, and displays results on a dashboard, adopted by QA team. Won Rookie of the Year.
- Investigated and resolved integration issues for partners onboarded on Connect2OCBC API store
- Managed change/management tickets, improving team productivity
- Assisted with digital certificate renewals for UAT server, documented renewal practices and implemented database housekeeping in UAT environment
- Created Swagger documentation and added APIs to sandbox portal via Wso2 carbon
- Taught JavaScript to secondary school students via Code@OCBC

IoT Lock Technician

SG Bike | Nov 2019 – Oct 2021

- Performed physical smart bike lock repairs and firmware upgrades, wrote troubleshooting documentation
- Reverse-engineered competitor's smart lock debugging software via dnspy decompilation — bypassed access restrictions, handed over as a cost-effective internal tool

Skills

Languages & Frameworks: TypeScript, JavaScript, React, SvelteKit, Python

Backend & Infrastructure: Fastify, Prisma, PostgreSQL, Redis, Railway, Docker, Bun, CI/CD, Cloudflare, Linux

Integrations & APIs: Stripe, Xero API, Azure AD, grammY, Temporal.io, oRPC, Zod

AI & Emerging: LangChain, LangGraph, Mastra AI, Replicate AI, MCP Servers, DeepSeek, RAG Applications

Education

Ngee Ann Polytechnic

Higher National Diploma, Information Technology | 2020 - 2023

Institute of Technical Education

Nitec, Web Applications | 2018 - 2019

Projects

Sales Consolidator: Order Pipeline

Replaced manual spreadsheet workflow with a structured order pipeline. Salespersons submit orders via Telegram. PostgreSQL source of truth. Role-based admin flows, CRON-triggered daily summaries.

- Zero data loss since launch
- AI product catalog intake: upload transcripts, DeepSeek AI structures them into product rows

Valentino Houseparty: AI Avatar & Interactive Arcade

4-station beauty brand event activation. AI pixel art avatar (Replicate flux-kontext-pro), Snake game, video stations, prize claim system. Built as SvelteKit 5 SPA with Fastify 5 API.

- Deployed at live event. Client was happy, event ran live
- Retro Windows 98 UI with 98.css

Themelios: AI Accounts Receivables Platform

AI-powered platform for invoice management, collections, and payment reconciliation. Temporal.io for durable workflow orchestration, Mastra AI agents, Xero/Stripe integrations. Startup attempt that failed — scrapped after partner fallout.

- Over-engineered for the problem and never shipped. A lesson in scoping
- Startup discontinued after co-founder fallout
- Built CI/CD pipeline with change-detection and self-hosted runners — environment-aware Prisma migrations with production safety guards, auto-healing GitHub issue tracking on failure. Deployed 6-service Railway stack (PostgreSQL, self-hosted Temporal, API, Workers, Frontend, Jump Server) with private networking and service-to-service communication.