

Dylan Chua

Software engineer in Singapore

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EXPERIENCE

Associate Software Engineer, Ensign InfoSecurity · Singapore

Jun 2026 – present

- Build and ship products into client environments as a forward-deployed engineer, from data pipelines to full-stack features
- Own AWS infrastructure and Kubernetes deployments for client-facing products
- Verify and troubleshoot data pipelines end to end, from vendor sources to client delivery
- Present solutions to prospective clients alongside sales and engineering teams

Software Engineer Intern, Ensign InfoSecurity

Jan – May 2026

- Implemented an AI-powered cybersecurity website to automate threat detection, making detection of fake news easier
- Developed and optimised a data pipeline for seamless integration and processing of security data
- Devised multitenancy features for a Cyber Threat Intelligence platform, creating a secure and isolated environment for multiple organisations
- Collaborated with cross-functional teams to integrate with existing systems and deliver a scalable cybersecurity solution

Software Engineer Intern, Nested AI

May – Aug 2025

- Engineered a production feature enabling users to mass-craft personalised emails using context-aware templates and GPT-powered automation, resulting in a 40% reduction in manual effort for client outreach
- Designed and implemented an interactive chatbot UI that lets users ask about company products and auto-generates detailed price quotations
- Resolved 25+ frontend bugs (form validation, UI consistency, error handling) and 10+ backend bugs (business workflows, Stripe integration), supporting the launch of 3 new product lines
- Optimised Docker Compose and deployment pipelines for AWS EC2, reducing downtime and improving deployment speed by 10%

Project Management Intern, Synapxe

May – Aug 2024

- Provided operational support for the Electronic Queue Management System (EQMS) and self-service kiosks at NUHS clinics, helping increase patient throughput by 10% and reduce average waiting times
- Engaged in all phases of the SDLC: gathering requirements, coordinating with 3+ stakeholders, and executing testing
- Led a technology refresh project upgrading outdated components, with 0 unplanned service disruptions during transition
- Managed timelines and coordinated deployment of system upgrades across 8 NUHS clinics

PROJECTS

Shit Go Where · Solo project · shitgowhere.com

Live since Oct 2026

- Built and run a public toilet finder for Singapore alone, on free tiers: nearest clean toilet, an urgent one-tap route, and check-ins and reviews that keep the map current
- Next.js progressive web app and NestJS API with Prisma and Postgres on Neon, MapLibre with OneMap tiles, photos on Cloudflare R2, hosted on Vercel
- Trust tiers separate toilets surveyed in person from community and open-data entries; a Telegram bot (@ShitGoWhereBot) answers with the nearest three
- Operate the domain, GitHub Actions CI and scheduled jobs, Sentry error reporting and PostHog analytics

Built with: Next.js, NestJS, Prisma, PostgreSQL, MapLibre, Vercel

The Circular Classroom · SMU capstone · circularclassroom.org

Feb – Apr 2026

- Built the analytics backend of a school-uniform donation and inventory platform, including a linear-programming endpoint for upcycling assembly planning and recipe presets
- Implemented secure CSV ingestion: validated S3 uploads, a preprocessing Lambda that normalises columns and quarantines failed files, and template downloads
- Shipped the inventory app's analytics configuration and product summary screens, and the public site's projects and research pages backed by DynamoDB

Built with: Next.js, AWS Lambda, S3, DynamoDB, Node.js

LingoLah · SEA-LION AI hackathon · github.com/DylanChua2001/SEA-lion-AI-hackathon Jul – Aug 2025

- Built a voice-driven Chrome extension overlay that lets seniors use websites in native dialects (Hokkien, Cantonese) without provider-side changes
- Created speech-recognition pipelines (OpenAI Whisper, Google STT) and integrated SEA-LION + LangChain to understand intent and perform tasks like booking appointments
- Engineered a Python microservices backend with MongoDB, containerised with Docker and deployed on AWS
- Text-to-speech responses via the Web Speech API, in audio and simplified text

Built with: Python, LangChain, SEA-LION, Chrome extension, Docker, AWS

D&D multi-agent backend · Team project Nov 2025

- Built an orchestrator that routes play between combat, exploration, NPC-behaviour and places agents, with a dice system and RAG over the D&D Basic Rules

Built with: Python, Multi-agent LLM, RAG

Pawfect Match · pawfect-match-dun.vercel.app · github.com/DylanChua2001/pawfectMatch Apr – Aug 2024

- Full-stack PERN app (PostgreSQL, Express, React, Node) that matches pets to owners by traits and preferences
- AI chatbot with GPT-4, LangChain and RAG for conversational matching, improving match relevance by 30%
- Persistent chat history; frontend and backend deployed on Vercel

Built with: PERN, GPT-4, LangChain, RAG, Vercel

EDUCATION

Singapore Management University, BSc (Information Systems) Jan 2022 – Jan 2026

Majors: Smart City Management and Technology; Digital Cloud Solutions

SKILLS

Languages: TypeScript, JavaScript, Python, Go, SQL

Backend: NestJS, Node.js, REST APIs, Microservices, Prisma, PostgreSQL, MongoDB

Frontend: React, Next.js, Tailwind

Cloud and DevOps: AWS (S3, SQS, DynamoDB, ECS, Lambda), GCP (Cloud Run, Vertex AI), Docker, Kubernetes, Terraform, Vercel, CI/CD

Data and AI: Data pipelines, Web scraping (Selenium), RAG, Multi-agent LLM systems, LangChain

CERTIFICATIONS

AWS Certified Solutions Architect – Associate, Amazon Web Services

Google Data Analytics, Google · 4 courses, from data foundations to R and visualisation