

Tan Jing Sheng

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EDUCATION

NATIONAL UNIVERSITY OF SINGAPORE (NUS)

Aug 2022 – June 2026

Bachelor of Computing (Computer Science) with Honours (Distinction)

CERTIFICATIONS

OFFENSIVE SECURITY (OffSec) | OSCP+ (PEN-200: Penetration Testing with Kali Linux) | credentials.offsec.com June 2025

AI SINGAPORE (AISG) | AI For Industry – Foundations in AI | AI For Industry – Literacy in AI | learn.aisingapore.org Dec 2024

EC-Council | Certified Ethical Hacker v11 | www.eccouncil.org Jul 2022

EXPERIENCES

Full Stack Software Engineer | GovTech | www.tech.gov.sg May 2025 – Aug 2025

Full-Time Internship

- Migrated the project's package management system from npm to pnpm, improving dependency resolution speed, disk efficiency, and consistency across environments. **Reduced pipeline durations by 80%**.
- Implemented an asset publishing workflow on AWS S3, ensuring files remain private until explicitly published, thereby **improving access control and overall system security**.
- Integrated a WYSIWYG editor that enables clients to create and edit HTML content without coding, improving usability while ensuring content sanitisation to **prevent XSS and other injection risks**.
- Fixed and optimised robots.txt and sitemap.xml configurations to ensure accurate web crawler indexing and **improve the platform's SEO performance** across client deployments.

Full Stack Software Engineer | Voltade | www.voltade.com May 2024 – Oct 2024

Full-Time Internship

- Collaborated** in a three-member team to build Digital Brain, an AI-integrated Enterprise Resource Planning system to facilitate registration, rescheduling, attendance-taking, payroll, invoicing, payments, and accounting, with Stripe and Xero integration. The system streamlined operations, **reduced administrative overhead by more than 30%**, and **improved financial accuracy and payment processing speed**, enhancing overall business efficiency.
- Contribute to the 10-day development of **Echo**, a custom AI-powered Customer Relationship Management platform. This includes designing and implementing a no-code feature that **enables users to create tables with AI-powered automatic data population**, streamlining data management and enhancing user autonomy.
- Developed and launched **AI-powered chatbots** capable of citing real, verifiable information, alongside self-learning features and customisable behaviour and design. The solution **handled over 1,000 conversations** across multiple clients within the first six months, **enabling a team to be replaced by a single person** and drastically reducing operational costs while improving customer support.
- Fostered and maintained strong client relationships by proactively conducting meetings to identify key needs and pain points, **effectively translating client needs into technical requirements** to support the efficient delivery of targeted solutions.

Full Stack Software Engineer | CVWO | www.comp.nus.edu.sg/~vwo May 2023 – Aug 2023

Full-Time Internship

- Implemented Module Management and Configuration as part of **Project Cornerstone**, reducing the onboarding process for beneficiaries from a **multi-week endeavour to under 24 hours**, boosting service delivery and operational efficiency.
- Developed a modular architecture that allows rapid customisation and simplified maintenance of application modules. This approach **improved system scalability and adaptability while accelerating feature development**.
- The delivered tools and solutions support a robust system **servicing more than 12,000 elderly individuals and staff members across 11 Active Ageing Centres**, enhancing operational efficiency and improving access to essential ageing services.

AWARDS

NUS – Guru Network AI Innovation Challenge 2025 | Champion | msba.nus.edu.sg Feb 2025 – Apr 2025

AI Innovation Challenge

- Won **Champion with S\$20,000** prize against **200+ competing teams** spanning multiple institutions, as part of a multidisciplinary team (NUS MSBA, NUS SoC, NTU) delivering cutting-edge Generative AI solutions.
- Built a mobile app with **on-device LLMs** for offline access and **agentic AI workflows**, integrating **frontier AI APIs** and Google Maps for personalised itinerary planning, smart suggestions, voice generation, and real-time trip updates, with group tour coordination, live trip sharing, and Bluetooth connectivity.

SKILLS & PROFICIENCIES

Code : TypeScript, HTML, CSS, Python

Frontend : React, Mantine, Material UI, Ant Design, TanStack, Hono RPC

Backend : NodeJS, Hono, Drizzle, Express, Prisma, PostgreSQL

Services : AWS, EC2, S3, Amplify, IAM, RDS, SES, Lambda, EventBridge, Route 53, ECR, ECS, Google Cloud Platform

Integrations : OpenAI, Anthropic, Supabase, Firebase, Xero, Stripe