

ZING JEN CHEW

Singapore • zjchew@singnet.com.sg • +65 9232 3152 • zingjen.vercel.app • linkedin.com/in/chewzingjen

EDUCATION

National University of Singapore (CAP: 4.71 / 5.00) Bachelor of Engineering, Biomedical Engineering (Hons), Computer Science (MIN), Management (MIN)	Singapore Aug 2022 - Jul 2026
Delft University of Technology (TU Delft) Computer Science (Exchange)	Delft, Netherlands Feb - Jul 2025

SKILLS

Programming Languages: JavaScript, Java, Python, SQL, Haskell, Agda, R
Developer Tech Stack: Next.js, React.js, FastAPI, Node.js, Git, HTML, CSS, Supabase, Stripe API, G Suite API

EXPERIENCE

NHG Health	Singapore
Software Engineer Intern (Full-Stack)	Jul - Dec 2025
• Engineered scalable full-stack solutions for the AINE project, empowering medical educators with interactive, AI-powered tools tailored for clinical learning contexts.	
• Delivered critical system components such as the Residency Rotation Scheduler, moving the project from early-stage conceptualisation to functional prototypes.	
• Collaborated closely with engineering and medical teams, translating intricate domain requirements into technical specifications to ensure system alignment with clinical needs.	
Respiree	Singapore
Software Engineer Intern (Frontend)	Aug - Dec 2024
• Spearheaded frontend optimisation and security enhancements for the clinician dashboard using React.js and Ant Design, significantly improving application performance and access control.	
• Orchestrated cross-functional deployment cycles across the SLDC, accelerating feature integration and strengthening system verification to ensure seamless releases and consistently high code quality.	
• Developed Python automation scripts to populate AWS DynamoDB with patient data, accelerating backend performance testing and data management workflows.	
Genome Institute of Singapore, A*STAR	Singapore
Data Analytics Intern	May - Aug 2024
• Recognised under the A*STAR Research Internship Award	
• Engineered statistical models and data pipelines using R to process large-scale clinical datasets (up to 100,000 samples), deriving actionable insights for the BREATHE and SGBCC cohorts.	
• Authored a research paper on breast cancer screening behaviors, translating complex data findings into technical publications.	

PROJECTS

<u>Golden Tikkee Event Ticketing Platform</u>	Nov 2025
• Architected a secure Next.js ticketing platform using Supabase for SSR authentication and Postgres Row Level Security (RLS) to enforce strict data privacy.	
• Engineered an automated fulfillment system using signature-verified Stripe webhooks to process payments, asynchronously generate QR codes, and dispatch transactional emails via Nodemailer.	
<u>Residency Rotation Scheduler</u>	Jul - Dec 2025
• Engineered a constraint-based scheduling engine using Python (FastAPI) and Google OR-Tools (CP-SAT) to automate complex medical residency rosters, enforcing strict training requirements while optimising for fairness and resident preferences.	
• Built an interactive "human-in-the-loop" dashboard with React, TypeScript, and Tailwind CSS, allowing administrators to visualise timetables, pin specific assignments, and iteratively tune solver constraints in real-time.	
<u>Hypercharged.CC</u>	Dec 2024 - Present
• Deployed a containerized full-stack analytics platform (React, FastAPI, MongoDB) on AWS EC2, processing hourly game data from official APIs to deliver real-time competitive insights.	
<u>WriteNow</u>	Jan 2025
• Developed a full-stack AI-powered digital PA (FastAPI, LangChain, React) for the Singapore Book Council that automates email triage, complex meeting scheduling, and minutes generation via seamless Google Workspace integration.	

INVOLVEMENTS

Member TeamNUS Varsity Mens Handball Team	2022 - 2026
---	-------------

Vice Captain

2025 - 2026

Temasek Hall Handball (M)

Captain

2023 - 2024

Temasek Hall Handball (M)