

ZING JEN CHEW

Singapore • zingjen@chewnet.sg • +65 9232 3152 • [Portfolio](#) • [LinkedIn](#)

EDUCATION

National University of Singapore (CAP 4.66 / 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, AWS, Azure DevOps, GCP, Supabase, Firebase, Streamlit

EXPERIENCE

Astignes Capital, Software Engineer Intern

Feb – May 2026

- Developed a custom Python-based automation engine to automatically aggregate disparate data sources across network drives, replacing manual data entry with programmatic Excel manipulation via openpyxl and pandas.
- Optimised and deployed a standalone desktop application using PySide6 and Nuitka compiler, leveraged Ahead-of-Time (AOT) compilation to convert Python source code into a high-performance C++ executable, ensuring seamless cross-platform delivery and consistent performance with versioning hosted on Azure DevOps.
- Collaborated directly with the Investor Relations team to translate manual reporting requirements into technical specifications, reducing the monthly reporting cycle time by up to 90% through automated data validation and aggregation.

NHG Health, Software Engineer Intern

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, Software Engineer Intern

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, 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 behaviours, translating complex data findings into technical publications.

PROJECTS

Golden Tikkee | Event Ticketing Platform [[View Website](#)]

Nov 2025

- Developed a secure full-stack event ticketing platform (Next.js, Supabase, Postgres RLS) featuring automated payment processing via signature-verified Stripe webhooks, asynchronous QR code generation, and Nodemailer email transactional dispatch.

Residency Rotation Scheduler [[View Website](#)]

Jul – Dec 2025

- Engineered a constraint-based medical roster scheduling engine (React, FastAPI, Google OR-Tools) with an interactive dashboard that automates complex timetable generation while allowing administrators to visually tune solver constraints in real-time.

Hypercharged.CC [[View Website](#)]

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.

WriteNow [[View Source Code](#)]

January 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

2022 – 2026

TeamNUS Varsity Men's Handball Team

Vice-Captain

2025 – 2026

Temasek Hall Handball (M)

Captain

2023 – 2024

Temasek Hall Handball (M)