CHEW ZING JEN

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EDUCATION

National University of Singapore

Aug 2022 - Jul 2026

Bachelor of Engineering (Hons) - GPA 4.71 / 5.00

• Biomedical Engineering (MAJ), Computer Science (MIN), Business Management (MIN)

Delft University of Technology (TU Delft)

Feb 2025 - Jul 2025

Computer Science (Exchange)

• Course work: Algorithms and Data Structures (Java), Functional Programming (Haskell & Agda), Software Quality and Testing (JUnit), Computer Networks (C++), Business Analytics (R)

WORK EXPERIENCE

Respiree, Software Engineering Intern

August 2024 – December 2024

- Resolved critical bugs and optimised frontend codebase on clinician dashboard using React.js, enhancing application performance and overall functionality.
- Designed and developed a disable-user-login feature on dashboard's frontend to enhance its security infrastructure for clinicians using tools such as Ant Design, Material UI and Axios.
- Wrote and executed Python scripts to pump patient data into AWS DynamoDB tables to assist with performance testing of backend architecture and contribute to efficient database management.
- Coordinated with backend developers to streamline feature integration, ensuring seamless deployment cycles.
- Collaborated on the verification and validation of development tasks, driving discussions to identify improvements and implement effective solutions for system fixes.

Genome Institute of Singapore, Data Analytics Intern

May 2024 - August 2024

- Internship under the A*STAR Research Internship Award.
- Conducted comprehensive data analyses on key breast cancer study cohorts, including BREAst screening Tailored for HEr (BREATHE) and The Singapore Breast Cancer Cohort (SGBCC).
- Developed and executed both descriptive and predictive statistical models using R programming, extracting actionable insights from complex datasets ranging from 4,000 to 100,000 samples.
- Led a study on breast cancer screening behaviours and authored a research paper showcasing significant findings.

PROJECTS

Hypercharged.CC [View Website]

December 2024 – Present

- Developed and deployed a dynamic full-stack web application that provides near real-time competitive statistics for Brawl Stars players by processing millions of battle records daily via the Brawl Stars and Brawlify APIs.
- Collaborated with backend team to implement hourly batch processing to query MongoDB, calculate match statistics, and store results for up-to-date data insights and further analysis.
- Built frontend with React.js, Tailwind CSS, and GSAP, providing an interactive and dynamic UI/UX for real-time statistics.
- Deployed on AWS EC2 instance with Docker for scalability and portability.

My Portfolio [View Website]

January 2025 - Present

- Personal Portfolio showcasing projects I have worked on so far.
- Built with Next.js, Tailwind CSS, and Motion. Deployed with Vercel.

SKILLS

- Programming Languages: JavaScript, Java, Python, Haskell, Agda, R, SQL
- Developer Tech Stack: Next.js, React.js, Redux, Tailwind CSS, GSAP, Motion, Axios, Node.js, Git, GitHub

AWARDS

- NUS Awards for Study Abroad (NASA Exchange Scholarship)
- A*STAR Research Internship Award (2024)

EXTRA CURRICULAR ACTIVITIES

Positions Held

- TeamNUS Varsity Handball Team | Member (2022-Present)
- Temasek Hall NUS Handball Team | Captain (2023-2024), Member (2022-2024)

Achievements

- Singapore University Games (SUniG), NUS Handball Men Champions (2024)
- NUS Inter-Hall Games (IHG), Temasek Hall Handball Men 1st Runner Up (2024), Champions (2023)
- Singapore University Games (SUniG), NUS Handball Men 2nd Runner Up (2022)