

CHEW ZING JEN

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EDUCATION

National University of Singapore

Aug 2022 - Jul 2026

Bachelor of Engineering (Hons) - GPA 4.72 / 5.00

- Biomedical Engineering (Maj), Computer Science (Min), Business Management (Min)
- Relevant BME course work: Biochemistry and Biomaterials, Biosignals and Bioinstrumentation, Bioengineering Data Analysis, Biomechanics, User-Centred Collaborative Design
- Relevant CS and BIZ course work: Programming Methodology (Python), Business Analytics with Python, Excel Analytics, Accounting, Finance

Delft University of Technology (TU Delft)

Feb 2025 - Jul 2025

Computer Science (Exchange)

- Relevant course work: Algorithms and Data Structures (Java), Functional Programming (Haskell & Agda), Software Quality and Testing, Business Analytics, Biomechatronics

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, Research 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 real-time, competitive statistics for Brawl Stars players by processing millions of battle records daily.
- Collaborated on backend using Python and MongoDB to fetch and store players' battle logs via the Brawl Stars and Brawlify APIs.
- Worked 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 user interface for real-time statistics.
- Deployed application on AWS EC2 instance with Docker for scalability and portability, handling large volumes of data with minimal latency.

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

AWARDS

- A*STAR Research Internship Award (2024).
- EAGLES Leadership Award (2017) - top 10% in cohort demonstrating leadership qualities, service to community and schools, excellence in non-academic activities, and good conduct.
- Honours Day Full Colours Award (2014, 2015, 2016, 2017) - in recognition of achievement in the ACS(BR) handball team.
- Edusave Top 25% Academic Award (2014, 2015).

EXTRA CURRICULAR ACTIVITIES

Positions Held

- TeamNUS Varsity Handball Team | Member (2022-Present)
- Temasek Hall NUS Handball Team | Captain (2023-2024), Member (2022-2024)
- TemasekGreen Committee, Temasek Hall NUS | Member (2022-2024)
- Sports Management Board, Temasek Hall NUS | Team Manager for Temasek Hall NUS Badminton Team (2022-2023)
- Anglo-Chinese Junior College Basketball Team | Member (2018-2019)
- Anglo-Chinese School (Barker Road) Handball Team | Member (2014-2017)

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)
- Handball B Division - Champions (2016, 2017)
- Handball C Division - 1st Runner Up (2015), Handball C Division - Champions (2014)