Chong Kai Ying

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| https://github.com/kaiiyingg | Singaporean

EDUCATION

Nanyang Technological University, Singapore   **Aug 2024 – Present**

Bachelor of Computing (Honours), Computer Science

- Honours (Highest Distinction) | CGPA 4.5/5 (Current)
- Relevant Modules – Data Structures & Algorithms, Object Oriented Design & Programming, C & C++ Programming, Computer Organisation & Architecture, Introduction to Computational Thinking & Programming, Digital Logic, Linear Algebra for Computing, Discrete Mathematics, Probability & Statistics for Computing

Raffles Institution, Singapore   **Feb 2022 – Dec 2023**

PROJECTS

Nanyang Technological University, Singapore
Object Oriented Design & Programming
Project Title - Build-To-Order (BTO) Management System   **Jan 2025 - April 2025**

- **System Design & Development:** Collaborated with a team of 4 members to design and develop a Build-To-Order (BTO) Management System using Java. Focused on implementing key object-oriented design principles, including encapsulation, polymorphism, inheritance, abstraction and SOLID to model the system's core entities: Applicant, HDB Officer, and HDB Manager.
- **Functional Development:** Developed features for applicant registration, project applications, status tracking, and flat booking, using a 5-layer architecture (UI, controller, service, data, and model layers) for modularity and ensuring data integrity with file-based storage through a CLI interface.
- **Documentation & Collaboration:** Authored system documentation, including UML class and sequence diagrams, to illustrate the application's architecture and flow. Contributed to the design decisions to enhance system scalability and maintainability, following best practices for object-oriented programming.

Introduction to Computational Thinking & Programming   **Oct 2024 - Nov 2024**
Project Title - Student team formation system

- **Algorithm Design & Data Management**: Worked with a team of 5 to develop an algorithm for balanced student team formation, considering school affiliation, gender, and CGPA distribution. Processed and analyzed 6,000 student records using Python without external libraries.
- **Visualisation & Evaluation**: Created visualisation tools with matplotlib and seaborn to assess team diversity effectiveness, ensuring clarity in the results.
- **Computational Thinking & Documentation**: Applied computational thinking to decompose the problem and design modular solutions. Documented the process in a Jupyter Notebook and presented findings clearly in a report; awarded A grade

HACKATHON

Hack4Good NUS Web Development Hackathon   **Jan 2025 - Feb 2025**
- Worked in a group of 4 to develop a web-based Minimart and Voucher System for Muhammadiyah Welfare Home.
- Handled frontend development, designing and implementing the user interface using HTML, CSS and JavaScript. Utilised React for building dynamic, reusable components and Next.js for server-side rendering and optimised performance, ensuring a seamless user experience across devices.

INTERNSHIP | WORK EXPERIENCE

Raffles Hospital, Singapore   **Jan 2024 - Jun 2024**

Healthcare, Surgery Centre Intern

- Handled patient registration and guided pre-op procedures in a high-traffic environment, strengthening communication and attention to detail.
- Supported frontline operations by addressing inquiries and coordinating with medical staff, ensuring smooth daily workflow.

- Reduced patient wait time by 20%, demonstrating my ability to optimise workflows and apply process improvements.

Golden village, Singapore   **Nov 2021 - Jan 2022**

Ticketing Staff

- Managed high volumes of customer interactions during peak hours, honing my multitasking and time management skills.
- Processed ticket sales, answered inquiries, and resolved issues, demonstrating effective problem-solving and clear communication.
- Improved customer satisfaction by 15%, showcasing my ability to work under pressure and deliver efficient solutions.

CO-CURRICULAR ACTIVITIES

Interact Club in Raffles Institution   **Mar 2022 - Sept 2023**

Active Member

- Led volunteer projects and mentored P4 students, strengthening my leadership and teamwork skills in a collaborative environment.
- Worked with peers to assist wheelchair-bound individuals, enhancing my ability to organise tasks and work effectively in diverse teams.
- Developed strong communication and adaptability, skills that will support effective collaboration in tech-focused environments.

RI Medical Society   **Dec 2022 - Sept 2023**

Volunteer

- Volunteered at AMK-Thye Hua Kwan Hospital, working in a fast-paced setting, enhancing my ability to manage time and priorities under pressure.
- Coordinated with staff and assisted patients, refining my problem-solving abilities and capacity to adapt to dynamic environments.
- Developed critical thinking and teamwork skills, directly transferable to fast-paced, solution-driven projects that require efficient collaboration and quick decision-making.

AWARDS | ACHIEVEMENTS

- Edusave Scholarship 2019-2021
- Completed NTU Career & Attachment Office Workshops 2024

SKILLS

- **Software:** Python, Jupyter Notebook, C, C++, Java, HTML, CSS, JavaScript
- **Languages:** Proficient in English and Chinese

HOBBIES & INTERESTS

- Volunteering, swimming, movies, lifelong learning and problem-solving.