

Teo Kai Jie (Kendrick)

+65 8128 0249 | kj.teo.work@gmail.com | pixelhypercube.github.io | LinkedIn: kai-jie-teo | Github: pixelhypercube

EDUCATION

Nanyang Technological University

Bachelor of Computing (Honours) in Computer Science

Singapore

Expected Graduation, 2028

- Current Grade Point Average (GPA): **4.64/5.00**
- Relevant Coursework: Data Structures & Algorithms, Object Oriented Programming, C & C++ Programming

Singapore Polytechnic

Diploma in Information Technology, Final GPA: **3.80/4.00**

Singapore

Mar 2022

EXPERIENCE

Singapore Armed Forces

Administrative Support Assistant (NSF)

Singapore

Dec 2022 – Aug 2024 & May 2025 - July 2025

(Service Disrupted Aug '24 – May '25 for first year NTU Studies)

- Deployed a **Node.js/EJS** QR code attendance system that reduced check-in time by **~60% for 200+ participants**; this system was later **featured on Army News** for its operational impact.
- Systematically tested and validated every feature of the unit's Telegram chatbots, reporting critical issues that improved system reliability and reduced user-reported bugs by **~80%**.
- Utilized low-code/scripting tools (VBA, PowerApps) to integrate and automate administrative workflows, successfully closing **300+ high-priority cases** and enhancing reporting functionality.

Freelance (Pro Bono)

Web Developer

Singapore

Mar 2022 – Sep 2022

- Developed modular **Next.js** profile components for Autodesk Pte. Ltd., adhering to enterprise-level workflows.
- Proactively refactored and debugged EcoExchange's internal data submission system (HTML/CSS/JS) to meet new organizational quality standards, successfully streamlining the processing & closure of 30+ operational cases.

Leaptron Engineering Pte. Ltd.

Software Engineer (Intern)

Singapore

Feb 2021 – Aug 2021

- Developed C# (Visual Studio) and Android (Java) applications for QR scanning and logistical functions, accelerating operational usability by **~30%**.
- Optimized Node.js servers (using SSH/Postman) and refined MySQL Stored Procedures for database efficiency, supporting 20+ warehouse staff.
- Rapidly developed and deployed a no-code (AppGyver) warehouse application, integrating with existing Node.js servers to boost workflow productivity by **~25%**.

PROJECTS

CellCollab (Personal Project) | React.js, Node.js, Heroku

- Engineered a live multiplayer Conway's Game of Life sandbox with real-time concurrent editing, utilising **Socket.IO** to implement **room-based channels** & ensure **simultaneous data synchronization** for all users.

pySquidGame (Personal Project) | Python, Pygame

- Designed a game with Object-Oriented Design (OOD) & KD-Tree spatial data structures to build scalable game components, integrating a custom impulse-based physics engine for collision dynamics.

Astertris (Personal Project) | Java 2D, Java Swing

- Engineered a radial gravity Tetris variant using Object-Oriented Design (OOD) principles, leveraging 2D Matrices to model the non-standard grid & Tetrominoes, and a Queue for deterministic piece generation logic.

SKILLS

- **Languages:** JavaScript, HTML/CSS, Python, Java, TypeScript, SQL, NoSQL, C#, C++, VBA
- **Frameworks:** Node.js, Express.js, React.js, Next.js, Bootstrap, Android SDK
- **Databases:** PostgreSQL, MySQL, MariaDB, MongoDB
- **DevOps:** Heroku, Git, GitHub