

RYAN NEO JIA HAO

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EDUCATION

National University of Singapore

Jan 2025 - May 2029

Bachelor of Science in Business Analytics (with Honours)

- Relevant Coursework: Programming Methodology (A)

Dunman High School

Jan 2017 - Dec 2022

IP Programme & Singapore - Cambridge GCE 'A' Levels

- University Admission Score : 88.75 Rank Points

EXPERIENCE

Defence Science & Technology Agency, Software Development Intern

May 2025 - Aug 2025

- Built 20+ modular MUI components in Storybook for a React webapp; contributed to RESTful API endpoints using Spring Boot.
- Improved application reliability with Playwright E2E tests; leveraged CloudWatch to trace and debug backend errors across services.
- Delivered 5+ user-facing features per sprint using Git and Jira; resolved edge cases with designers to refine user flows.

Singapore Armed Forces (SAF), Platoon Commander

Jun 2024 - Apr 2025

- Developed a structured Excel-based tracking system to collect and categorise 50+ fault reports, improving data organisation and analysis.
- Integrated PowerBI dashboards to visualise 10+ fault trends, enhancing data-driven insights shared during command meetings.
- Streamlined post-exercise reporting by automating analytics with PowerBI, reducing preparation time by 30% and increasing documentation accuracy.

TECHNICAL SKILLS

Frontend: React, Vite, Next.js, JavaScript, HTML, CSS, MUI, Tailwind CSS, GSAP, Framer Motion

Backend & APIs: Python, Flask, Spring Boot, RESTful APIs

Databases & Infra: PostgreSQL, Firebase, Supabase, Microsoft SQL Server (SSMS), Render, Vercel

Testing & DevOps: Vitest, Playwright, Jest, Git, CI/CD, CloudWatch, Jira

ML & Data: Scikit-learn, NumPy, Pandas, PowerBI, Excel

Languages: English (Fluent), Mandarin (Fluent), Japanese (Conversational)

PROJECTS

OCEAN Personality Trait Classifier (Personal)

Mar 2025

- Developed a multi-label classifier to predict OCEAN traits from user text, trained on Hugging Face and cleaned datasets with logistic regression (avg F1: 0.76).
- Built a full NLP pipeline with lemmatization, TF-IDF vectorization, and source-based encoding to enhance signal across varied inputs.
- Deployed a Flask API to serve real-time predictions, facilitating downstream integration into personality-based recommender systems.

Portfolio Webapp (Personal)

Jan 2025

- Developed a responsive portfolio web application with React and Next.js, showcasing personal projects, skills, and experience in an interactive and visually engaging format.
- Designed an optimised user interface with Tailwind CSS, GSAP, and Framer Motion, implementing smooth animations and dynamic transitions for a polished user experience.

BookBuddy (Hack4Good)

Jan 2025

- Designed the frontend of a personal assistant web app in React, featuring 4 key productivity features: task assignment, reminders, meeting scheduling, and email summary generation, with a responsive and user-friendly interface optimised for 100% of tested devices.
- Integrated the frontend with the backend using RESTful APIs, enabling seamless data exchange and handling 100+ tasks and schedules per user efficiently.
- Implemented basic security measures, including private routing and Google Login API, securing access for 10+ unique users during the hackathon project.

Telegram Expense Tracker Bot (Personal)**Nov 2024 - Dec 2024**

- Programmed a Telegram bot to track and split group expenses using Python and Telegram APIs.
- Integrated Supabase for user authentication and real-time database management of expenses and group data of up to 10 group users.
- Utilised web hooks to enable 100% seamless communication between Render backend and Telegram servers.
- Achieved 24/7 uptime with cloud hosting and streamlined development workflow using CI/CD pipelines.

LEADERSHIP**Singapore Armed Forces (SAF), Platoon Commander****Jun 2024 - Apr 2025**

- Led and mentored a platoon of 20, delivering structured training, performance feedback, and development plans in alignment with operational goals.

AWARDS

- Edusave Award for Achievement, Good Leadership and Service (2020)