TAN YU HANG

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EDUCATION

National University of Singapore   **Aug 2024 – Dec 2027**
Bachelor of Computing in Computer Science, minor in Mathematics and Statistics
GPA: 4.7/5 (First Class Honours)
Relevant Modules: Discrete Structures (A), Programming Methodology I (A+), Programming Methodology II (A),
Linear Algebra for Computing (A), Probability and Statistics (A), Data Structures and Algorithms (A-),
Software Engineering (A-), Computer Organisation (A-)

SKILLS

- **Programming Languages:** Python (Proficient), Java (Proficient), JavaScript/TypeScript (Proficient), C (Working), SQL (Proficient), HTML/CSS (Working)
- **Frontend:** React (Vite), React Native (Expo)
- **Backend:** Node.js, Express.js, FastAPI
- **Databases:** MySQL, Supabase, PostgreSQL
- **Testing/Other:** JUnit, JavaFX

WORK EXPERIENCE

ECICS   **Jan 2026 – Present**
Full Stack Developer Intern

- Fixed bugs and optimised Robotic Process Automation to improve error rate from 15% to 10%.
- Automated user account creation workflow by building backend server, saving vital man hours.
- Upgraded from robotic process automation to UiPath, improving speed, accuracy and tracking.

NUS School of Computing   **May 2025 – Dec 2025**
Teaching Assistant – CS1101S

- Conducted weekly 2-hour tutorial sessions, reinforcing core CS concepts and mentoring problem-solving skills.
- Achieved 5.0/5.0 Teaching Feedback score (4.3 department average) with 83% response rate and 60% teaching award nomination.
- Evaluated ∼20 student coding assignments weekly (∼100 lines each) without automated tests, requiring deep code comprehension.

RSAF Chong Pang Medical Centre   **Aug 2023 – Nov 2024**
Medical Sergeant cum Logistics-IC

- Developed an Excel sheet to speed up stocktaking workflow and track indents/expiry dates.
- Created a Telegram bot for patients to find FAQs instead of calling landline.

PROJECTS

Noteit – NUS Independent Software Development Project (Orbital)   **May 2025 – Aug 2025**
Full-Stack Academic Support Web App – https://note-it-drab.vercel.app/

- Co-developed a full-stack app for note-sharing and Q&A forums for NUS students.
- Engineered file upload with Supabase Storage, module-specific forum with tagging, custom PDF viewer with highlighting, and .ics calendar parser.
- Implemented error handling, edge-case checks, and conducted extensive user testing with NUS students.
- Paired programming, Git/GitHub tracking, deployed production build on Vercel.

Task Manager Application   **Jan 2024 – Apr 2024**
JavaFX Chat-Based Task Manager – https://github.com/gnahuy123/jp

- Built a comprehensive task-tracking chat app with GUI using JavaFX, with save/load, date/time handling, and search features.
- Executed advanced Git workflows, CI/CD pipeline, and collaborative development.
- Applied JUnit testing, CheckStyle, JavaDoc, achieving 95%+ code coverage.
- Delivered production-ready JAR distributions with Gradle.

Mommy.AI – Hack@SMU   **Mar 2024**
AI-Powered Productivity App with Personality

- Designed and developed a React Native (Expo) app with authentication, task creation, calendar integration.
- Integrated local LLaMA 3.2 model via Ollama for on-device natural language parsing.
- Implemented personalised AI-driven notifications with Node.js/Express backend.

Database Management for Restaurant – CS2102   **Aug 2025 – Nov 2025**

- Designed and implemented a PostgreSQL relational database schema from multiple CSV sources.
- Developed Python scripts to parse and clean data from 4 CSV files.
- Wrote and optimized SQL triggers to enforce business logic and data consistency.

Driving Slot Booking Bot   **Oct 2023**

- Utilised Selenium to create a bot that snatches available booking slots.

NBA Dashboard   **Dec 2024**

- Created dashboard using StreamLit to visualise team data for future games.
- Retrieved legacy data from 3rd-party API and scraped future schedules with Beautiful Soup.

ACHIEVEMENTS, LEADERSHIP & COMMITTEE EXPERIENCE

Project Grit – Head Teacher   **Jun 2025 – Jul 2025**

- Curated lesson plans and led 12 volunteers to teach Python fundamentals to children (10–12 years old).

ASRJC Choir – Assistant Student Conductor   **Apr 2020 – Apr 2021**

- Directed and conducted a 40-member choir, leading weekly rehearsals and performances.
- Answered queries during open house, contributing to 12% increase in signups.