

TAN YU HANG

Mobile: 86140868 Email: tanyuhang2000@gmail.com GitHub: github.com/gnahuy123
<https://www.linkedin.com/in/tan-yu-hang-350189363/> Personal Website: <https://yuhangblog.streamlit.app/>

EDUCATION

National University of Singapore

Aug 2024 - May 2028

Bachelor of Computing in Computer Science (NUS)

- GPA : 4.84/5 (First Class Honours)
- Relevant Modules: Discrete Structures(A), Programming Methodology I(A+), Programming Methodology II(A), Linear Algebra for Computing(A), Data Structures and Algorithms(A-)
- Currently Taking: Software Engineering, Computer Organisation, Database systems

SKILLS

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

WORK EXPERIENCE

NUS School of Computing *Teaching Assistant CS1101S*

Aug 2025 - Present

- Conducted weekly 2-hour tutorial sessions for students, reinforcing core computer science concepts while mentoring in developing problem-solving and algorithmic thinking skills.
- Designed personalised challenges in assignments for advanced students and provided 1-on-1 consultations to support weaker students, improving engagement and comprehension.
- Created instructional slides and supplementary materials to enhance clarity and retention of complex programming concepts.
- Evaluated ~20 student coding assignments weekly (~100 lines each) without automated test cases, requiring in-depth code comprehension, logical reasoning, and fair assessment across diverse solutions.

RSAF Chong Pang Medical Centre *Medical sergeant cum Logisitics-IC*

Aug 2022 - Nov 2023

- Excelled in high pressure patient resuscitation scenarios, getting highest possible achievement, 1A, for mock scenarios.
- Led 20 medics to 0 stores related findings in 2022 Excellence in Medical Service Audit and 2023 Commercial Stock-take.
- Dispensed medications regularly and was nominated by a Medical Officer to receive a safety award for catching a vaccination error before it happened.

PROJECTS

Notel, NUS Independent Software Development Project (Orbital)

May 2025 - Aug 2025

- Co-developed a full-stack academic support web application to centralise note-sharing and Q&A forums for NUS students, addressing challenges of fragmented resources and lack of academic support.
- Engineered core features including a file upload system with Supabase Storage, a module-specific forum with tagging, a custom PDF viewer with integrated highlighting and contextual question posting, and an automated .ics calendar parser for user onboarding.
- Implemented comprehensive error handling and edge-case checks (file type/size, duplicate module entries), and extensive user testing with NUS students to validate UX.
- Paired programmed with alternating full-stack rotations, tracked work via Git/GitHub, delivered documented designs and process logs, and deployed a production build to Vercel (<https://note-it-drab.vercel.app/>).

Task Manager Application

Aug 2025 - Present

- Built a comprehensive chat application that tracks tasks with GUI using JavaFX, implementing save/load functionality, date/time handling, and advanced search features while following strict coding standards and documentation practice
- Executed advanced Git workflow management including parallel branch development, merge conflict resolution, pull request reviews, and CI/CD pipeline setup, demonstrating proficiency in collaborative software development.
- Applied rigorous software quality assurance through JUnit testing, CheckStyle integration, JavaDoc documentation, assertion-based error handling, and comprehensive code reviews, ensuring 95%+ code coverage.
- Delivered production-ready software by creating JAR distributions with Gradle build automation, with robust error handling for edge cases, and optimising GUI performance for enhanced user experience. (<https://github.com/gnahuy123/ip>)

ACHIEVEMENTS, LEADERSHIP & COMMITTEE EXPERIENCE

Project Grit, Head Teacher

Jun 2025 - Jul 2025

- Curated lesson plan and materials while leading a group of 12 volunteers to teach Python fundamentals to children (ages 10–12) with no prior experience, through both group sessions and one-on-one instruction.

ASRJC CHOIR, Assistant Student Conductor

Apr 2020 - Apr 2021

- Answered queries from prospective juniors during open house with extensive musical knowledge contributing to increased signups compared to previous year by 12%.
- Directed and conducted a 40-member choir, leading weekly rehearsals and performances across school and national events.