TAN DE XUN

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SUMMARY

Computer Science undergraduate at NUS and software engineer, aspiring to work in DevOps and cloud. Ten months of full-stack development at A*STAR (Angular, C#/.NET) and two years in SPF cybercrime operations. Ships projects with tests and CI/CD, learns new technologies by building with them, and is exploring how AI coding tools can make engineers faster without lowering the bar.

EDUCATION

Bachelor of Computing in Computer Science | National University of Singapore — Aug 2026 - May 2030

Diploma in Information Technology | Singapore Polytechnic — Apr 2021 - Apr 2024

GPA: 3.82 / 4.00 | Director's Honour Roll (AY 2021/22) | Gold with Honours CCA Award

EXPERIENCE

Cybercrime Operator (National Service) | Singapore Police Force, Cybercrime Command — Jul 2024 - Jul 2026

- Identified and disrupted scam websites at the Threat Intelligence Centre as part of the pioneer Cybercrime Operator cohort.
- Developed internal tools and systems that made anti-scam operations more efficient.
- Received the SPF Director's Award; featured in The Straits Times for work in the vocation.

Software Development Intern | A*STAR — Mar 2023 - Jan 2024

- Built Angular and TypeScript frontend features and C#/.NET REST APIs for a continuous last-mile logistics platform.
- Tested and debugged APIs with Swagger and Postman; refactored components with design patterns for maintainability.
- Traced delivery-job payload discrepancies to their cause using data analysis, scripts and visual reports.

PROJECTS

Settle | JavaScript, Node.js, Redis, Vercel, node:test live — 2024 - 2026

- Settle-up app for game nights; first version hand-built in 2024, rebuilt in 2026 with 24-hour shared tables, atomic server-side submissions and payments unlocked only when totals balance to the cent.
- Exact BigInt arithmetic with largest-remainder rounding; EMVCo PayNow QR codes generated on the device; serverless functions with Redis storage.

Gatebound | TypeScript, Three.js, Vitest, GitHub Actions live — 2026

- 3D browser game with a seeded simulation separated from rendering, 640+ unit tests, a bot-driven balance test, and a CI pipeline that tests and deploys every push.

Automation and pipelines | Python, Canvas API, FFmpeg, YouTube Data API, launchd — 2026

- Nightly job syncing five courses' files, deadlines and grades from Canvas into a searchable vault, coordinated with a separate planner job.
- Building a scheduled content pipeline with restartable stages and idempotent uploads; next: containerise it and move it to a cloud runner.

Polytechnic team projects (2021 - 2024): Student Management System (Java), Dungeon Crawler (React), Restaurant Ordering Menu (JavaScript); AWS serverless, secure coding and MySQL CRUD projects.

LEADERSHIP AND ACTIVITIES

Platform & Quality Lead | SiloamXperience school website revamp — 2026 - Present

- Lead a three-person team owning code review, QA against design and acceptance criteria, and the build and deployment pipeline.

Tech Associate | Google Developer Group @ NUS Computing — Aug 2026 - Present

Represented Singapore Polytechnic in floorball (POL-ITE) | Cisco Cybersecurity Essentials

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, C#, Java, SQL, R

Frameworks: Angular, React, .NET, Node.js, Astro, Three.js

DevOps and cloud: GitHub Actions, CI/CD, Docker, AWS (serverless), Vercel, Git, Bitbucket, Linux

Data, testing and AI tools: MySQL, SQL Server, MongoDB, Redis, Vitest, Postman, Keycloak, Claude Code, Codex, Ollama