

# Ding-Han (Sean) Yan

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## SKILLS

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- **Programming Languages:** Javascript/TypeScript, C/C++, Java, Python, Rust, Bash, Scheme, Assembly, HTML/CSS.
- **Technologies:** NodeJS, Jest, Docker, ExpressJS, VueJS, MongoDB, Pandas, Git/Github (Action), Flask, Nix, Linux.

## EXPERIENCES

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### Software Engineer Intern

July 2025 — Present

Ai-pu-yun Tech Co., LTD

Taipei, Taiwan

- Built backend systems at a startup using AWS, AWS SAM, PostgreSQL, Python, TypeScript, and Docker for scalable apps.
- Used Vue.js, Playwright for front-end and testing, with CI/CD pipelines to streamline software development life cycle.
- Collaborated with a team to drive startup growth, leveraging insights into funding, business strategies, and agile methods.

### Private CS Tutor

July 2025 — September 2025

Self Employed

Vancouver, BC, Canada

- Tutored CPSC 210: Software Construction, guiding students through object-oriented programming, design patterns, clean code principles, comprehensive unit testing, and effective documentation practices.
- Tutored CPSC 121: Models of Computation, formal logic, proofs, FSMs, and regex, showcasing strong logical reasoning and clarity in theoretical concepts.
- Demonstrated exceptional communication skills, breaking down intricate concepts into clear, accessible explanations.

### Mathematics & English Tutor

May 2023 — July 2023

Meiko School

Taichung, Taiwan

- Tutored students from Years 1–12 in Mathematics and English, adapting methods to individual learning styles.
- Raised students' Mathematics test scores from 46% to 96% through a strong pedagogical approach focused on clarity, intuition, and active problem-solving.

## PROJECTS

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### Youtube ([Youtube.com/@DHSYan](https://www.youtube.com/@DHSYan))

November 2023 — Present

- To share my immense passion for computer science and software development.

### Job Tracker API

[github.com/DHSYan/job-tracker-api](https://github.com/DHSYan/job-tracker-api)

- Built RESTful API with Node.js, Express.js, and MongoDB for job application tracking with CRUD features.
- Used Mongoose ODM for robust data modeling and modular architecture, enhancing code scalability and maintainability.
- Containerized app with Docker and Docker Compose for reliable, production-like deployments across systems.
- Attained 95%+ unit test coverage with Jest, ensuring stable CI/CD and 80% fewer regression bugs during updates.

### Multi-threaded Chat App in C

[github.com/DHSYan/Terminal-Chat-App](https://github.com/DHSYan/Terminal-Chat-App)

- Built multi-threaded chat app using TCP/UDP with concurrent user handling and real-time communication.
- Designed thread-safe private and broadcast messaging, plus peer-to-peer media transfer without blocking.
- Mastered network and concurrency with per-client threads, synchronization, and custom protocols.

### S-expression Functional Language Compiler

- Built a compiler and assembler for custom functional and assembly languages, simulating a full toolchain.
- Gained strong proficiency in manual memory management, low-level architecture, and algorithms.
- Applied deep understanding of stack organization, including frames, pointers, and heap allocation.

### Personal Website

[github.com/DHSYan/Portfolio-Website](https://github.com/DHSYan/Portfolio-Website)

- Developed a personal website with HTML and CSS to showcase projects.

## EDUCATION

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### University of British Columbia

Sept 2022 — Dec 2027

Bachelor's of Science, Computer Science

Vancouver, BC

- Cumulative GPA: 91.4% | Dean's Science Scholar List