

Anson NG

hej@an5on.com | an5on.com

Education

The Chinese University of Hong Kong (CUHK)

Expected July 2027

Bachelor of Science in Computer Science

Cumulative GPA: 3.83/4.00

- Dean's List Recipient | 2023 – 2024 | 2024 – 2025
- Awarded 11 merit-based scholarships at both regional and institutional levels.

Experience

Summer Internship, KTH Royal Institute of Technology – Stockholm, Sweden

May 2026 – Present

- Developing a compiler to translate Scala into SPIR-V assembly for native, hardware-level GPU execution.
- Designing a safe, sound type system tailored for homogeneous programming using Capture Tracking.

Research Assistant, supervised by Prof. Lauren Pick, CUHK

Apr 2026 – Present

- Collaborating with a research team to explore Large Language Models for modular reasoning and maximal specification synthesis to assist agentic code generation.
- Developing an agentic workflow with MiniSWEAgent in Python for evaluating the effectiveness of LLM-generated code with prompted formal specifications against the DafnyBench dataset.

Research Assistant, supervised by Dr. Hoover Yin, CUHK

Apr 2024 – Oct 2024, Jul 2025 – Dec 2025

- *1st Research*: Led a seven-member undergraduate team investigating the effects of placement and colour contrast on nested halftone QR codes to achieve higher information density while maintaining scan reliability.
- Developed a nested halftone QR code generator in Java/JVM, enabling experiments with varied configurations, sizes, and error correction levels.
- *2nd Research*: Optimised batch sizes and intermediate node buffer sizes to enhance transmission efficiency under the batched sparse codes (BATS) scheme.
- Developed a Python simulator to replicate wireless communication in multi-hop networks with BATS Codes as transmission method.

Programmer, SKH Lam Woo Memorial Secondary School – Hong Kong

July 2023 – Dec 2023

- Converted a paper-based disciplinary system to a paperless solution using Google Suite, integrating with existing FoxPro-based administrative systems, to retrieve and update student data and generate reports.

Projects

Punkt – Kotlin, Java, GraalVM Native Images, Next.js, React

Oct 2025 – Present

- Developing a cross-platform dotfiles management CLI tool using Kotlin and Java, to streamline configuration synchronisation across machines with a simple workflow with zero external dependencies.

Kotlin Atrium, Testing Library for Kotlin – Kotlin, Java, Gradle

Jul 2025 – Present

- Contributor to the Kotlin Atrium assertion library, focusing on the development of unit and integrated tests for all supported platforms (Kotlin/JVM, Kotlin Native, Kotlin/JS).
- Improving test coverage for core library components, ensuring high-fidelity verification of assertion logic.

Packill, Full Stack Online Learning Platform – Vue.js, Tailwind CSS, PostgreSQL, Postman

Dec 2022 – July 2023

- Initialised Packill as an experimental startup project to deliver hybrid courses with Markdown, interactive demos and practices, earning enthusiastic feedback from pre-university students.
- Designed API endpoints with Strapi V4 as the backend framework, PostgreSQL for data storage, and JWT authentication, enabling user management and course progress tracking.

Skills

Communication: Cantonese (Native), English (IELTS 8.0), Mandarin (Fluent), Swedish (A1)

Programming Languages and Frameworks: Kotlin, C, Java, Scala, SQL, Vite, Vue.js, Tailwind CSS, HTML, CSS, JS

Computer Architecture and Assembly: RISC-V