Cheng Ho Ming

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Professional Experience

Radio Television Hong Kong (RTHK) 🌐 — Hong Kong
Summer Intern, Engineering Section (Broadcast Systems), Production Services Division — *Jun 2025 – Aug 2025*

- Researched the feasibility of correcting Cantonese subtitle transcription errors with **Streamlit** and **PyCantonese**, and developed a demo system for internal evaluation, identifying potential to reduce manual editing effort based on sample data.
- Developed a Python-based video post-processing tool using **OpenCV** and **MediaPipe** for a visitor workshop; enabled a one-button automated workflow ("START") to record, save, add effects, and playback, generating hundreds of unique showcase videos.
- Researched and evaluated webcam-based motion capture tools for 3D model animation; selected and tested a top free solution (System Animator) and validated 3D asset workflow (FBX to VRM conversion) using **Blender** and **Unreal Engine**.

The University of Hong Kong 🌐 — Hong Kong
Part-Time, Student Research Assistant — *May 2025 – Jun 2025*

- Curated a specialized dataset of **200+ scientific articles** for a linguistic analysis chatbot under principal investigator Dr. Lisa Cheung.

Part-Time, Student Teaching Assistant — *Jan 2025 – Apr 2025*

- Provided targeted **C++/Linux support** in small-group sessions, clarifying complex topics like memory management and pointers.

InspireLab Limited 🌐 — Hong Kong
Summer Intern, Embedded Software Developer — *May 2024 – Aug 2024*

- Engineered a functional **RISC-V** microcontroller STEM toolkit, integrating 5+ open-source libraries and controlling over **64+ I/O components**.
- Developed a C-based, API-level hardware simulator to decouple software from hardware, enabling rapid parallel testing and iteration.

Project Experience

alphahku.page (Student Organization Website) 🌐 ⌨ — *July 2025 – Aug 2025*
- Developed a static website for a student organization using **Next.js**, shadcn/ui, framer-motion, Tailwind CSS, and deployed on Vercel.

Reproducing RealFill (SIGGRAPH 2024) ⌨ — *Mar 2025 – May 2025*
- Implemented and benchmarked a custom two-stage refinement pipeline based on LoFTR by integrating and modifying RealFill code in Jupyter Notebook.

Stock Market Simulator (C++ Terminal Game) ⌨ — *Apr 2024*
- Led a team of 5 in designing software modules and managing development tasks for a C++ terminal-based game.
- Enhanced developer experience and collaboration by implementing **CI/CD pipelines** on 3 platforms using GitHub Actions, automating compilation and code checks for all pull requests.

PyInstaller (Open Source Development) ⌨ — *Jul 2021 – Nov 2021*
- Contributed **15+** custom PyInstaller hooks (e.g., for Kivy), all merged and adopted upstream in 2021, improving library compatibility and developer experience for the open-source project.

Education

The University of Hong Kong — Hong Kong
Bachelor of Arts and Science in Applied Artificial Intelligence (BASc(AppliedAI)) — *Sep 2023 – Jul 2027 (Expected)*
- **CGPA**: 3.56/4.30   **Second Major**: Computer Science

King's College — Hong Kong
Hong Kong Diploma of Secondary Education — *Sep 2017 – Aug 2023*
- Best 5 subjects: Physics (5*), Mathematics (5*), ICT (5*), Chinese (5), English (5)

Skills

Languages: Cantonese (Native), Mandarin (Fluent), English (Fluent)

Programming: Python (Data Science), C/C++ (Makefile, CMake), Java, SQL (MySQL), NoSQL (MongoDB)

Web Development: React.js, Next.js, Express.js, Tailwind CSS, Jekyll, PHP

Tools: Linux (Ubuntu, Arch), Git, CI/CD (GitHub Actions, Docker), LaTeX

Cloud: Deployed applications and hosted a Minecraft server on Google Cloud Compute Engine using free trial credits