Cheng Ho Ming

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Professional Experience

Radio Television Hong Kong (RTHK) 🌐
Summer Intern, Engineering Section (Broadcast Systems), Production Services Division

Hong Kong
Jun 2025 – Aug 2025

- Engineered a video automation pipeline using Python (OpenCV, MediaPipe) that generated over **500+ unique videos** for a visitor showcase, completely eliminating manual editing effort by **100%**.
- Developed a proof-of-concept for motion capture using a standard webcam, Blender, and Unreal Engine to animate 3D models, demonstrating a cost-effective method for repurposing media assets.
- Prototyped an NLP system to correct Cantonese transcription errors from OpenAI Whisper, demonstrating a potential **5% reduction** in manual editing time for TV subtitle production.

The University of Hong Kong 🌐
Part-Time, Student Research Assistant

Hong Kong
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 🌐
Summer Intern, Embedded Software Developer

Hong Kong
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 gemini-cli.

Reproducing RealFill (SIGGRAPH 2024)
Mar 2025 – May 2025

- Extended the RealFill paper by implementing a 2-stage iterative refinement pipeline using LoFTR to improve image completion authenticity as a course group project.

Stock Market Simulator (C++ Terminal Game) ⭘
Apr 2024

- **Led a team of 5** in software design, defining key modules and allocating tasks for a C++ terminal-based game.
- Implemented **CI/CD pipelines** on 3 platforms using GitHub Actions, ensuring code quality via **50+ automated pull request checks**.

PyInstaller (Open Source Development) ⭘
Jul 2021 – Nov 2021

- Authored **15+ PyInstaller hooks** to expand support for libraries like Kivy, contributing directly to a major open-source project with over **12k+ stars**.

Education

The University of Hong Kong
Bachelor of Arts and Science in Applied Artificial Intelligence (BASc(AppliedAI))

Hong Kong
Sep 2023 – Aug 2027 (Expected)

- **CGPA**: 3.56/4.30   **Second Major**: Computer Science
- **Relevant Coursework**: Data Structures and Algorithms, Linear Statistical Analysis, Computer Vision

Skills

Languages: Cantonese (Native), Mandarin (Fluent), English (Fluent)
Programming: Python, C/C++, Java, Web Development (React.js, Express.js), SQL
Tools: Linux, Git, GitHub Actions, LaTeX, Google Cloud, FFmpeg