

Cheng Ho Ming

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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 (A), Java (A), C/C++ (A), Python (A+), Computer Organization (A), Linear Statistical Analysis (A-), Computer Vision (A-), Database (A-), Web Development (A+)

Professional Experience

Radio Television Hong Kong (RTHK) 🌐

Summer Intern, Engineering Section, Production Services Division

Hong Kong

Jun 2025 – (Current)

- Engineered a video automation pipeline in Python using OpenCV, MediaPipe, and FFmpeg to capture, process, and render personalized video souvenirs for a visitor showcase. The tool automated the entire workflow, generating over 500+ unique videos and reducing manual editing effort by 100%.
- Evaluated open-source motion capture solutions and implemented a proof-of-concept using a standard webcam, Blender, and Unreal Engine. The prototype successfully animated existing 3D character models, demonstrating a cost-effective method for repurposing media assets for new technology demonstrations.
- Prototyped an NLP expert system using PyCantonese to automatically correct errors in Cantonese transcriptions from OpenAI Whisper. The prototype, built with Streamlit, demonstrated 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 across four themes (AI, Big Data, Sustainability) for the CorpusChat linguistic analysis Chatbot.
- Principal Investigator: Dr. Lisa Cheung from CAES (Center of Applied English Studies)

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 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 🌐 🐙

July 2025 – (Current)

- Developed a static website for a student organization using Next.js, shadcn/ui, framer-motion, Tailwind CSS, and gemini-cli.

Minecraft Server using Google Cloud

June 2025

- Hosted a Minecraft server on Google Cloud Compute Engine for my friends for 3 months.

Reproducing RealFill: Reference-Driven Authentic Image Completion 🐙 🖼️

Mar 2025 – May 2025

- Extended RealFill (Tang et al, SIGGRAPH 2024) by implementing a 2-stage iterative refinement pipeline using LoFTR to improve output 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 12k+ stars.

Skills

Language: 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