# Cheng Ho Ming

HKU BASc(AppliedAI) Year 3 • ✉ eric310@connect.hku.hk • 📞 +852 9499 8184

🌐 eric15342335.github.io • 🔗 linkedin.com/in/eric15342335 • 🐙 github.com/eric15342335

## 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 deployed on Vercel.

### 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 (PyQt6, MediaPipe, OpenCV, pandas, matplotlib, PyInstaller), C/C++ (Makefile, CMake), Java, SQL (MySQL, MongoDB)

**Web Development**: HTML5, Tailwind CSS, JS, PHP, Node.js, Express.js, Pug, Jekyll, React.js, Next.js

**Tools**: Linux (Ubuntu, Arch), Git, CI/CD (GitHub Actions, Docker), LaTeX, Google Cloud Platform (Compute Engine), FFmpeg CLI