

Cheng Ho Ming

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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

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.
- Developed a Python-based video post-processing tool using **OpenCV** and **MediaPipe** for a visitor workshop; enabled a one-button automated workflow 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

30-Day All-Cause Hospital Readmission Prediction with MIMIC-IV

Oct 2025 – Dec 2025

- Applied **advanced machine learning techniques** (Stacked Generalization, Automatic Machine Learning, ModernBERT LoRA fine-tuning, Natural Language Processing, LightGBM/XGBoost/CatBoost, feature engineering), achieving **10% improvement** in AUROC over baseline models.
- Identified and reported critical **future data leakage** in the dataset that artificially inflated AUROC to 0.95, demonstrated how such flaws lead to over-optimistic models that fail in clinical production.
- Secured **1st Place** on the Kaggle Public Leaderboard by identifying and exploiting data patterns, subsequently leading to a change of competition rules and dataset cleaning.

alphahku.page

July 2025 – Aug 2025

- Developed a static website for a student organization using **Next.js**, shadcn/ui, Tailwind CSS, and deployed on Vercel.

Reproducing RealFill (a research paper on 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 **oversighting Software Development Life Cycle** for a C++ terminal-based game course project.
- **Reduced time-to-market and developer friction** 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.

Skills

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

Programming: Python, C/C++, Java, MySQL, MongoDB

Web Development: React.js, Next.js (Vercel), Express.js, Tailwind CSS

Tools: Linux, Git, CI/CD (GitHub Actions), Docker, L^AT_EX

AI/ML: Neural Networks (PyTorch), Automatic Machine Learning (AutoML), Hugging Face (transformers), Data Visualization (Streamlit, seaborn), Computer Vision (OpenCV, MediaPipe), Natural Language Processing (NLTK, BERT)