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 – Aug 2027 (Expected)*

- **GPA**: 3.56/4.30
- **Second Major**: Computer Science
- **Relevant Coursework**: Data Structures and Algorithms (A), Java and OOP (A), C/C++ (A), Python (A+), Computer Organization (A), Linear Statistical Analysis (A-), Computer Vision (A-), Database (A-)

Professional Experience

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

- Improving the accuracy of an automatic speech recognition (ASR) system and develop video editing automation tools using Python

The University of Hong Kong — Hong Kong
Part-Time, Student Research Assistant — *May 2025 – (Current)*

- Curating 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
- Addressed 15+ student queries on the online forum, providing detailed explanations to resolve issues

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 64+ I/O components
- Developed a C-based, **API-level hardware simulator** to decouple software from hardware, enabling rapid, parallel testing and iteration
- Resolved critical hardware integration challenges by mapping board schematics to physical I/O ports, ensuring reliable device operation

Project Experience

Google Cloud Automated Minecraft Game Server — *May 2025 – (Current)*

- Provisioned and benchmarked a Google Compute Engine VM to host a high-performance Minecraft server supporting 5+ concurrent players and a live web map
- Automated server operations, using scheduled snapshots for disaster recovery and scripted shutdowns to minimize costs while ensuring data integrity

Reproducing RealFill: Reference-Driven Authentic Image Completion — *Mar 2025 – May 2025*

- Extended **RealFill (Tang et al, SIGGRAPH 2024)** by implementing a novel **2-stage iterative refinement pipeline** using LoFTR to improve reference image selection
- Engineered a comprehensive **benchmarking suite** (6 metrics, e.g., LPIPS, CLIP) to quantitatively evaluate model authenticity on RealBench and custom datasets

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 Speaker), Mandarin (Fluent), English (Fluent, HKDSE level 5)
Programming: Python (Advanced), C/C++, Java (OOP), Shell Scripting, Web Development (MERN stack), R, MySQL
AI/ML & Data Science: Image Inpainting (Diffusion Models), Model Benchmarking (LPIPS/CLIP/DINO), PyTorch
Tools: Linux, Git, CI/CD (GitHub Actions), LaTeX, Docker, Google Cloud Platform (Compute Engine)

Last updated: June 21, 2025