# 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**: 3.48/4.30

- 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, Computer Vision, Introduction to Database

## Professional Experience

## Radio Television Hong Kong (RTHK)

Hong Kong

Summer Intern, (JT5) Engineering Section, Production Services Division

Jun 2025 - Aug 2025 (Upcoming)

# The University of Hong Kong

Hong Kong

Part-Time, Student Research Assistant

May 2025 - (Current)

• Support CorpusChat by identifying, filtering, and curating scientific literature for linguistic analysis under the supervision of Dr. Lisa Cheung (Center of Applied English Studies)

Part-Time, Student Teaching Assistant

Jan 2025 - Apr 2025

• Taught COMP2113/ENGG1340 (C++/Linux) via support sessions and addressing 15+ student online forum queries

#### InspireLab Limited

Hong Kong

Summer Intern, Embedded Software Developer

May 2024 - Aug 2024

- Built RISC-V microcontroller STEM toolkit for hardware button programming; used 5+ open-source libraries
- Utilized 4 hardware modules to control 64+ buttons, LEDs, and a 128x64 monochrome display
- Developed API-level hardware simulator (header-based) mapping embedded I/O to terminal for development
- Collaborated with hardware engineers to verify 4+ board designs

# Project Experience

Reproducing RealFill: Reference-Driven Authentic Image Completion 🗘 📙

Mar 2025 - May 2025

- Co-reproduced and extended RealFill (Tang et al, SIGGRAPH 2024) for authentic image completion
- Implemented ReFill extension: 2-stage iterative refinement pipeline with LoFTR-ranked images to augment references
- Engineered benchmarking suite (6 metrics e.g. LPIPS, CLIP) for authenticity on RealBench and custom datasets

## Essential IT Skills (Certificate Course by HKU SAAS Department) 🞧

May 2024 - Jun 2024

• Developed Matplotlib (Python) visualizations for \$NVDA stock forecasts (team project); co-authored 1-week time series report

#### Stock Market Simulator (C++ Terminal Game) 🖸

Apr 2024

- Implemented CI/CD (3 platforms) via GitHub Actions, ensuring code quality (50+ PR checks)
- Led team of 5 in software design, **defining key modules (events, stock mechanics, I/O)**, and task allocation for C++ game

#### 

Jul 2021 - Nov 2021

• Authored 15+ PyInstaller-hooks-contrib hooks (e.g. Kivy), patches/docs to core; enhanced Git & CI/CD skills

# Skills

Language: Cantonese (Native Speaker), Mandarin (Fluent), English (Fluent, HKDSE level 5)

**Programming:** Python (Advanced; packaging, scripting), C/C++, Java (OOP), Shell Scripting, Web Development (MERN stack), R, MySQL

AI/ML & Data Science: Generative Models (Applied Diffusion/Inpainting e.g. RealFill), Computer Vision (Image Completion, Model Evaluation with LPIPS/CLIP/DINO), PyTorch

Tools: Linux, Git (Advanced; branching, merging, CI workflows), GitHub Actions (CI/CD), LaTeX, Docker

Last updated: June 8, 2025