

Lai Yu Ching

Electronic and Computer Engineer

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Profile

Motivated and enthusiastic Electronic and Computer Engineering Year 4 student at the Hong Kong University of Science and Technology (expected graduation 2026), with an extended major in Artificial Intelligence. Seeking internship or entry-level opportunities to apply technical skills in programming, circuit design, and 3D modeling in a dynamic engineering environment. Eager to contribute to innovative projects, leverage hands-on experience in robotics and AI, and gain practical industry exposure.

Education

2022 – 2026 The Hong Kong University of Science and Technology
(Expected)

Bachelor of Electronic and Computer Engineering

Extended Major in Artificial Intelligence

Relevant coursework includes programming, circuit design, AI, and robotics.

Skills

- Programming: Python, C++, C#, PyTorch, CUDA, R, SQL
- Engineering: Circuit mapping, 3D modeling (Blender), ROS2, embedded system
- Tools: WSL2 Ubuntu, Unity Engine, Office software
- Soft Skills: Project management, time management, self-learning, team collaboration

Professional Experience

July 3, 2025 – August 29, 2025 **Engineer Intern**, *Hong Kong Centre of Logistics Robotics*, Hong Kong

- Contributed to a medicine packaging machine project utilizing ROS2, WSL2 Ubuntu, and C++ to ensure system functionality and structural reliability.
- Optimized operational parameters of the packaging machinery, significantly increasing machine throughput and overall process efficiency.
- Participated in the functionality and security testing of backend transaction websites to ensure seamless data exchange and robust system performance.
- Collaborated with engineering teams to debug and optimize robotic systems, gaining practical insights into logistics robotics applications.

September 1, 2025 – May 29, 2026 **Final Year Project: Liquid Crystal Analysis using Convolutional Neural Networks**, *The Hong Kong University of Science and Technology*

- Achieved highly accurate estimation and characterization of Liquid Crystal structural properties through the skillful application of CNNs and advanced deep learning methodologies.
- Developed and trained neural networks using PyTorch to analyze liquid crystal properties, applying state-of-the-art AI tools for sophisticated image processing and physical data interpretation.
- Conducted research on custom CNN architectures to maximize optimization and precision in material analysis, demonstrating engineering proficiency in machine learning frameworks.

Additional Experience

September 1, 2018-May 29, 2021 **Committee Member, Robotic Team**, *St. Paul's College High School*, Hong Kong

- Managed project timelines, resources, and deliverables to successfully complete robotics projects within deadlines.
- Organized team meetings, technical workshops, and community outreach events to promote STEM education and foster team collaboration.
- Developed competition strategies by analyzing game rules, optimizing robot designs, and creating detailed playbooks for enhanced performance.

Online Self-Learning: Unity Engine and Blender, *Independent Study*

- Researched and resolved technical challenges in game development, including debugging scripts and optimizing performance for efficient outcomes.
- Demonstrated strong self-discipline and time management by independently learning and completing advanced projects.
- Enhanced programming skills in C# for scripting game mechanics, interactions, and animations within Unity Engine.

Languages

English	Fluent
Cantonese	Native
Mandarin Chinese	Native
German	Basics
Japanese	Basics