Jiahao ZHANG

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EDUCATION The Hong Kong University of Science and Technology (HKUST)

Bachelor of Engineering in Computer Science (Minor Math) (CGA3.444/TGA3.874) Sep 2024 – Present

- **Core Courses:** Design and Analysis of Algorithms(A), Linear Algebra(A+) Computer Organization (A-), Programming with C++ (A-), Intro to Electro-Robot Design (A), Discrete Math Tools (A-) Exploring Artificial Intelligence(A), Search Engine(A+), Independent Work (A).

TECHNICAL SKILLS

- **Languages:** Python, C/C++, JavaScript
- **AI & Data:** PyTorch, RAG, LLM APIs, NumPy, Pandas
- **Frameworks & Tools:** React, FastAPI, Docker, Git/GitHub, OpenClaw, Claude Code
- **Skills:** Backend Development, DevOps, LLM Fine-tuning, Prompt Engineering

PROJECTS

KnowIt: Project Leader, HKUST Entrepreneurship Center–Funded AI Project Spring 2026

- Led the development of an AI-powered learning platform using RAG and persistent document knowledge bases to retrieve and reason over course materials and past papers.
- Built the full-stack and cloud infrastructure and iteratively improved retrieval quality, knowledge organization, and LLM-based workflows through real-user testing. https://pastpaper.knowit.top/

Independent Work: CS/AI Interactive Learning Lab Supervised by Prof. Desmond TSOI Spring 2026

- Developed interactive web-based tools for COMP2211 (Introduction to AI) to visualize and explain core AI algorithms and concepts. https://knowcs.pinit.eth.link/

RoboMaster Freshman Internal Competition Champion Fall 2024

- As the captain of the championship team, responsible for the design and operation of the autonomous robot, eventually leading the team to victory.

EXPERIENCE

Robotics Hardware & Algorithm Developer | Swie Robotic *Shenzhen, China* Summer 2026

- Built robotic arm and autonomous videography robot prototypes, including PCB design, sensor integration, and hardware–software debugging. Developed ROS2 navigation, obstacle-avoidance, and agentic AI pipelines for autonomous robotic planning and decision-making.

China Robot Operating System (ROS) Summer School *Zhejiang University* Summer 2025

Other Activities: HKUST OpenClaw Workshop Instructor; 2026-27 CSE-CPEG Peer Mentor