

Jaehyung (Andrew) Choi

[in LinkedIn](#) | [+44 \(0\) 7467 245855](#) | [✉ jaehyungchoi0923@gmail.com](#) | [GitHub](#) | [Portfolio Website](#)

Education

Engineering Tripos (BA & MEng)

University of Cambridge

Cambridge, UK 10/2022 - 06/2026

- 1st class in 1st year (Mechanical Engineering and Thermofluids, Structures and Materials, Electrical and Information Engineering, and Mathematical Methods)
- Upper Second Class in 2nd year (Mechanics, Thermofluid Mechanics, Structures, Materials, Electrical Engineering, Information Engineering, Mathematical Methods, Business, Manufacturing Engineering, Machine Learning)

Skills

- C | C++ | Python | Git | Docker | Linux | Cloud Computing | Embedded Systems | CMSIS | IoT | Android Development | HTML | CSS
- AI | Machine Learning | Deep Learning | Computer Vision | LLM | Pytorch | LangChain | Prompt Engineering
- English, Korean – All professional proficiency or above

Experience

Software Developer Intern

Arm

Cambridge, United Kingdom 07/2024 - Present

- Developed and delivered a series of MOOC courses—including a beginner-level MicroPython programming course for the BBC micro:bit, an advanced STM32 development course leveraging CMSIS, HAL, and RTOS for I2C, serial communication, and interrupts, and an advanced IoT course integrating BLE and MQTT within Keil Studio.
- Designed and implemented a chatbot using advanced prompt engineering techniques—namely Retrieval-Augmented Generation (RAG), AI Agent, and LangChain—to enhance productivity for both internal and external users, developed and maintained in the Microsoft Azure AI Studio environment.
- Developed an automated compliance-checking tool using Python to analyze member data and verify submission of annual reports. The script automatically sends email notifications to those who fail to meet the contractual requirements.
- Built a metadata generation tool utilising GPT-4o and LangChain to automate the creation of structured metadata.
- Ran LLM models on ARM devices such as Android/iOS smartphones and optimised the models by pruning and quantisation.

Machine Learning Research Intern

Auto-ID Labs KAIST

Daejeon, South Korea 06/2023 - 09/2023

- Actively contributed to implementing algorithms for the AI Speaker using OpenAI Whisper and GPT-3.5-Turbo API.
- Deployed deep learning models, including YOLOv8, FastSAM, and Ultra-Fast-Lane-Detection-V2, on edge devices like Xilinx FPGA and NVIDIA Jetson Orin.
- Developed an AI Speaker using Raspberry Pi with OpenAI Whisper for speech recognition and GPT-3.5-Turbo for response generation. Integrated Humelo API for Text-To-Speech capabilities.
- Designed and implemented a lane detection system using GoPRO Hero11 and Ultra-Fast-Lane-Detection-V2 on NVIDIA Jetson AGX Orin. Optimised performance using TensorRT for real-time lane departure warnings.
- Organised the GS1 Exhibition and had the opportunity to present my AI-related work to the CEO of GS1.

Projects

Device Programming

01/2024 - 2/2024

- Programmed STM32 Nucleo-144 board using ARM Keil Studio to record a sequence of colours entered by the user and then play it back.
- Programmed the microcontroller to record temperature by I2C communication with the LM75 sensor and trigger an interrupt when it goes above a threshold value using hardware interrupt.

Integrated Design Project

10/2023 - 12/2023

- Led the software team to create a line-following and path-finding algorithm using an IR sensor with Arduino.
- Designed a system that can tell apart two objects using ultrasonic and ToF sensors.
- As a project manager, created a Gantt chart and helped the Electronics and Mechanical teams work together to finish the robot on time for the competition.

Mentorship

A Level / GCSE Maths & Physics Tutor

10/2022 - Present

- Experienced educator in A Level and GCSE Maths and Physics, having instructed over 20 students ranging from Year 10 to Year 13.
- Provided personalised guidance on personal statements for Oxbridge and Imperial College London applications, along with an interview preparation assistance.