

James Young

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EDUCATION

The Hong Kong University of Science and Technology

Hong Kong

BEng in Electronic Engineering - Minor in Information Technology

Sept. 2020 – June 2024

SKILLS

Programming Languages: Python, C++, Javascript

Tools/Platforms: Linux, Git, Docker, Ansible, Jenkins, Kubernetes

Cloud: AWS (DynamoDB, Lambda, API Gateway, EC2, S3)

Languages: English (Native)

WORK EXPERIENCE

Software Developer Intern | Intelligent Design Technology

December 2023 – February 2024

- Developed a prototype for real-time human fall detection using pose estimation with Movenet and heuristics for determining fall.

Electronic Engineering Intern | Kolour Think Tank

August 2023

- Developed a digital utility meter reader that takes images of a utility meter with an ESP32-CAM, stores images to AWS S3, reads the meter reading with Rekognition, and stores the data in DynamoDB.

IoT Intern | Graphite Venture Limited

December 2022 – May 2023

- Developed Arduino libraries for reading water sensor data with ESP32 and sending sensor data to AWS IoT Core through MQTT.

PROJECTS

Air Quality Monitoring Dashboard

- A fullstack project that stores and displays my home's air quality sensor data using AWS services.
- Data is stored and retrieved on DynamoDB using REST API with API Gateway and Lambda. Front-end uses HTML, CSS, and Javascript.

Home Server

- Built home server running Proxmox for self-hosting services and applications such as Nextcloud using Linux containers and virtual machines.
- Applied various tools such as Docker for containerization, Grafana for monitoring, and Ansible for automation.

Mini Robot Cleaner

- Created a robot car cleaner with a STM32 board written in C that can be wirelessly controlled through UDP or can roam autonomously
- Integrated the bubble rebound algorithm for avoiding obstacles in free roam mode
- Used Python UDP transmissions and for GUI to control robot wirelessly

EXTRACURRICULAR ACTIVITIES

- HKUST Football Team

Jan. 2021 - Present