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 - Present

Relevant Coursework

- Programming with C++
- Object-Oriented Programming and Data Structures
- Intro. to Computer Organization and Design
- Computer Communication Networks
- Deep Learning in Computer Vision
- Cloud Computing and Big Data Systems

SKILLS

Programming Languages: C++, Javascript, Python

Tools/Platforms: Git, Docker, Linux, Nginx

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

Languages: English (Native)

Work Experience

Software Developer Intern | Intelligent Design Technology Design Technology

December 2023 - Feburary 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 on a DynamoDB database using AWS services.
- Data on DynamoDB is stored and retrieved using REST API with API Gateway and Lambda.

Home Server 🗹 |

- Built home server running Proxmox for self-hosting services such as Nextcloud.
- Became familiar and comfortable around Linux and the command-line interface and learned how to apply various tools such as Nginx, Docker, etc.

Mini Robot Cleaner

- Created a robot car cleaner with a STM32 board that can be wirelessly controlled through UDP or can roam autonomously
- Integrated the bubble rebound algorithm for avoiding obstacles in free roam mode