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*

Boston University — United States
Master of Science in Computer Science (Part Time) — *Sept. 2024 – Present*

Skills

Programming Languages: Python, C++, Javascript
Tools/Platforms: Linux, Git, Docker, Ansible, Kubernetes
Cloud: AWS (DynamoDB, Lambda, EC2, S3)

Work Experience

Software Developer Intern — December 2023 – Feburary 2024
Intelligent Design Technology Limited — *Hong Kong*

- Developed a prototype for real-time human fall detection for a Raspberry PI based robot.
- Fall detection uses Tensorflow and Movenet for pose estimation and heuristics for determining fall.

Electronic Engineering Intern — August 2023
Kolour Think Tank — *Hong Kong*

- 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 — December 2022 – May 2023
Graphite Venture Limited — *Hong Kong*

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

Projects

Serverless Face Blurring

- A serverless application that blurs faces on an image using OpenFaaS and Python. Stores the transformed image in a MinIO storage bucket.
- Application deployable on Kubernetes using MiniKube and Helm charts.

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.

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
- Used Python for socket programming and PyQT5 to create GUI to control robot wirelessly