James Young

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EDUCATION

Boston University   MA, United States
Master of Science in Computer Science   *September 2024 – Present*

Hong Kong University of Science and Technology   Hong Kong
Bachelor of Science in Electronic Engineering, Minor in Information Technology   *September 2020 – June 2024*

SKILLS

Technologies: Python, Javascript, Typescript, SQL
Platform/Tools: Git, Github Actions, AWS, Terraform, Linux, Docker

PROJECTS

Serverless Face Blurrer   *faceblur.jyylab.com*
React, Python, Lambda, DynamoDB, S3, Rekognition, Terraform
- Developed a full-stack application that automatically blurs faces in images uploaded to an S3 bucket with job queues stored in DynamoDB
- Frontend built with React and backend built with Python using AWS Lambda and Rekognition
- Deployed the application using Terraform with CI/CD implemented with Github Actions
- Improved system reliability by adding SQS to handle image processing jobs

STM32 Robot Cleaner   *youtube.com/watch?v=z4BqyFa29B0*
C, Python, STM32
- Created a robot car with a STM32 board that can be wirelessly controlled through ESP01 chip with UDP and can also roam autonomously whilst avoiding obstacles
- Integrated the bubble rebound algorithm for avoiding obstacles in autonomous free roam mode using 3 ultrasonic sensors
- Developed robot GUI control with UDP using Python socket library and PyQT5 to for GUI

CERTIFICATIONS

- AWS Certified Solutions Architect (SAA-C03)
- HashiCorp Certified Terraform Associate (003)
- Red Hat Certified System Administrator (RHCSA)

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 in Python
- Utilized OpenCV for video capture and Tensorflow with Movenet for pose estimation combined with heuristics for classifying fall

IoT Intern   December 2022 – May 2023
Spotless Tech Limited   *Hong Kong*
- Implemented C++ libraries for reading water sensors with ESP32 and sending sensor data to AWS with MQTT, achieved ESP32 20% power consumption reduction by implementing light sleep intervals.
- Worked on implementing peer-to-peer communication for activating nearby water pumps with multiple ESP32 devices. Increased communication range and speed by more than 10% by switching from BLE to ESP-Now.

EXTRACURRICULARS

NCAE Cyber Games   Feburary 2025 – Present
- Joined NCAE Cyber Games, a cybersecurity and CTF competition where our team competed against other universities and finished 1st in the regionals.