James Young

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Education

Boston University MA, United States

Master of Science in Computer Science *September 2024 – Present*

- **GPA:** 4.0
- **Relevant Coursework:** Analysis of Algorithms, Database Management, Operating Systems

Hong Kong University of Science and Technology Hong Kong

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

- **GPA:** 3.13
- **Relevant Coursework:** Cloud Computing and Big Data Systems, Deep Learning in Computer Vision, Object-Oriented Programming and Data Structures, Computer Communication Networks

Skills

Technologies: Python, Javascript, C++, SQL (MySQL), HTML/CSS
Libraries/Frameworks: React, Numpy, Pandas, Pytorch, Matplotlib
Platform/Tools: Git, Github Action, 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)
- Red Hat Certified System Administrator (RHCSA)
- HashiCorp Certified Terraform Associate (003)
- CompTia A+ Certification

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 the NCAE cyber security competition to compete against other students in capture the flag competitions