# 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, SQL (MySQL), HTML/CSS
**Libraries/Frameworks**: React
**Platform/Tools**: Git, Github Action, AWS, Terraform, Linux, Docker

## PROJECTS

**Bluebike Availablility Predictor**  *bluebikepredictor.jyylab.com*
*Python, Flask, EC2, Terraform*

- Developed an application that makes real-time future predictions on the number of available Bluebikes at 3 bike stations near my home using machine learning.
- Employed Random Forest for prediction model trained with monthly Bluebike historical ridership data alongside temperature and precipitation data.
- Added web interface using Flask to display predictions and data visualizations, deployed with Docker on EC2 with Terraform.

**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

## CERTIFICATIONS

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

## 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

| HKUST Varsity Soccer Team | Sept 2021 – June 2024 |
|---|---|
| NCAE Cyber Games (CTF Competition) | Feburary 2025 – March 2025 |