James Young

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EDUCATION

Boston University   MA, United States
Master of Science in Computer Science   *September 2024 – Present*
- **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*
- **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, SQL, HTML/CSS
Libraries/Frameworks: React, Numpy, Pandas, Pytorch, Matplotlib, Scikit-Learn
Platform/Tools: Git, AWS, Terraform, Linux, Docker

PROJECTS

Bluebikes Availablility Predictor   *bluebikespredictor.jyylab.com*
Python, Pandas, Scikit-Learn, React, Docker, Terraform
- Built a machine learning application to forecast real-time Bluebikes availability for three stations near my home.
- Leveraged historical Bluebikes ridership data alongside temperature and precipitation data for training with Gradient Boosting Regressor model to predict bike demand.
- Used Flask to deploy prediction model for backend, front-end uses React to display availability forecasts, deployed application 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 by users.
- Frontend built with React, middleware uses Lambda, Rekognition, SQS for event-driven architecture, backend uses S3 bucket with job queues stored in DynamoDB.
- Deployed the application using Terraform with CI/CD implemented with Github Actions.

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

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