

James Young

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EDUCATION

The Hong Kong University of Science and Technology
BEng in Electronic Engineering

Hong Kong
Sept. 2020 – Present

RELEVANT COURSEWORK

- Intro. to Computer Science
- Programming with C++
- Object-Oriented Programming and Data Structures
- Intro. to Computer Organization and Design
- Computer Communication Networks
- Data-Driven Portfolio Optimization

SKILLS

Programming Languages: C++, Javascript, Python, SQL (Postgres), HTML/CSS

Tools/Platforms: Git, Docker, Linux

Languages: English (Native), Mandarin (Conversational)

WORK EXPERIENCE

IoT Intern | Graphite Venture Limited 🔗

December 2022 – May 2023

C++, ESP32, Arduino

(Full and Part Time)

- Developed Arduino libraries for reading water sensor data with ESP32 and sending sensor data to AWS IoT Core through MQTT with a SIM7600G module.
- Created an Arduino library for communicating to multiple ESP32 with ESP-Now protocol.

PROJECTS

Home Server 🔗

- Built home server running bare metal Ubuntu server to host services such as NextCloud with Docker.
- Became familiar and comfortable around Linux and the command-line interface. Also learned and applied knowledge of networking concepts such as reverse proxies.

To-Do List 🔗

- Created a to-do list website using Django framework with user authentication and ability for user to create, update, and delete each task.
- Deployed Django application on an AWS EC2 instance with Docker using Gunicorn, Nginx-Proxy, Letsencrypt, and Postgres as database.

Mini Robot Cleaner 🔗

- Created a robot car with a STM32 board that can be wirelessly controlled through UDP transmissions and also has an autonomous free roam mode
- Integrated the bubble rebound algorithm for avoiding obstacles in free roam mode using 3 ultrasonic sensors
- Used Python for socket programming and PyQt5 to create GUI to control robot wirelessly

EXTRACURRICULAR ACTIVITIES

- HKUST Football Team

Jan. 2021 - Present