Ka Tin Mitch Lui
Bristol, UK / Hong Kong

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Born and raised in Hong Kong, I came to the UK to pursue a career in software engineering and find my stride in an industry that is becoming more competitive.

As the son of a building consultant and a manager working in the transportation sector, I have a knack for designing systems, noticing the small details and I am a fast learner in addition to being highly adaptable in fast-paced environments.

SKILLS

Languages: Python, Java, Golang, C, Haskell
Web Development Languages: HTML & CSS, JavaScript
Frameworks: FastAPI, Flask, Django, Docker, React.js, Node
Database: MySQL, mongoDB, Redis
Hardware: Experience building computers of various sizes and OSs, upgrading components for friends and family
Others: Amazon Web Services, IBM Cloud

EXPERIENCE

Graduate Teacher (Level 2)
University of Bristol, UK | September 2021 - Present

- Hosting seminars with small groups of students covering all content from year 1, e.g. programming in C and Haskell
- Prepared for sessions by reading through worksheets and solutions every week, resulting in ability to communicate concepts and keep students engaged

Student Laptop and Mobile Clinic Technician
University of Bristol, UK | September 2021 - Present

- Responsible for giving 1st and 2nd level IT support, diagnosing and solving software-related issues for students, specialising in resolving tickets involving macOS and Linux-based systems
- Attempting to memorise entire wiki given by the senior staff and asked as many questions as possible during triage, allowing me to complete tickets more efficiently

Technical Events Officer
University of Bristol Computer Science Society, UK | May 2021 - Present

- Planned technical events roadmap such as hackathons and CTFs for the academic year
- Successfully organised two major events that had over 150 attendees total by meeting with sponsors and committee members regularly and using Trello to keep track of running tasks

Chatbot Developer Intern
Asiabots Limited, Hong Kong | Jun 2020 - Sep 2020, periodically throughout 2021 (Part-time basis)

Key Responsibilities:
- Worked with the CTO and COO to develop over 25 chatbots, voicebots and other software for a number of clients such as Cathay Pacific, AIA Insurance and DBS Bank with minimal oversight
- Implemented and deployed entire backend for an admin panel with FastAPI, MySQL and AWS EC2 for client to seamlessly spend credits and generate human-like speech using typed text
- Took ownership and assisted with the migration of a dozen Python APIs from Flask to FastAPI, implemented Pydantic schemas for documentation and Redis databases for session management on multiple worker threads
- Performed data manipulation, transformation and filtering to increase accuracy of multi-lingual (Cantonese, English and Mandarin) natural language processing model

Achievements:
- Designed and developed the infrastructure for current generation of bots to provide cross-platform and cross-media (text / audio) compatibility and client-customisable conversation flows, eliminated need for multiple repositories for individual bots
- Convinced management to begin adoption of FastAPI based on its speed improvements and ease of use in all stages of development
- Improved usage analysis tools which reduced development time and lowered operating costs by 5%

EDUCATION

University of Bristol
BSc Computer Science | Oct 2020 to Present (Expected to graduate Jul 2023)

- Achieved a mark of 72 in the Object-Oriented Programming Scotland Yard coursework for implementing a backtracking algorithm and scoring method to decide computer player moves using Google Guava's ValueGraph library

ACHIEVEMENTS AND ACTIVITIES

University of Bristol Virtual Open Week
Panelist for Computer Science | June 2021

- Spoke to over 100 prospective students about the Computer Science Degree Programme in a conversational-style webinar
- Answered a number of questions about the course as well as sharing my personal experiences and anecdotes

University of Bristol BEEES Make-a-thon
Overall Best Prize, Verification / Validation Prize, Gamification Prize | April 2021

- Created a Proof-of-Concept application in Python and OpenCV for real time detection of persons wearing face coverings
- Developed a highly accurate (99%) binary classifier model using a neural network built with Keras and Tensorflow and enabled detection of various types of masks while preventing circumvention via covering face with hands, t-shirt etc

University of Bristol CSSxBoeing Hackathon
First runner up (Exploration) | March 2021

- Worked in a team of 6 and competed against over 40 teams and presented the project to judges in a 2-minute demonstration
- Developed a website and FastAPI-based backend using Docker Compose for displaying information about marine vessels and their positions in real time
- Led the team by teaching them basic OOP Python and how to access REST APIs prior to event and communicating how to create the application

CERTIFICATIONS

Amazon Web Services Certified Cloud Practitioner (CLF-C01)
Issued February 2021 (Score: 828/1000)

- Obtained using knowledge gained while working for Asiabots Limited developing and deploying containerised applications on Lambda and EC2 in addition to maintaining digital assets on S3
- Developed a deeper understanding of core AWS services, security architecture and pricing

PROJECTS

Cryptocurrency Trading Program
In Progress | June 2021 - Present

- Implemented a Dollar-Cost-Averaging and price-tracking trading strategy in Python to purchase and hold cryptocurrencies from the Kraken exchange until a specified profit margin is reached
- Deployed a test version on AWS using FastAPI and has since yielded a profit of over £800 from a capital of ~£1000

Flat-finding Program
Completed | February 2021

- Used Selenium to search for flats on Zoopla and Rightmove based on number of bedrooms, bathrooms, location etc) and display them on a web browser
- Implemented as a terminal program and run as a cron job last year whilst flat-hunting, resulting in finding the flat I am currently residing in

LANGUAGES

English (IELTS: 8.0)   **Cantonese** (Native)   **Mandarin** (PSC: 三甲/3A)   **French** (DELF: A2)