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 quick learner in addition to being highly adaptable in fast-paced environments.

EDUCATION

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

- **2021-2022**
  - Awarded 75% in a group software engineering project for creating an event-triggered automation tool for IBM which was praised as "a substantial and professional product created using a mature and robust development process"
  - Received 74% in Golang coursework for writing concurrent and distributed solutions to Conway's Game of Life using channels, mutex locks (concurrent) and brokers (distributed) to split input into chunks to speed up workload by 50%

- **2020-2021**
  - Achieved 72% in the Java 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

SKILLS

Languages: Python, Java, Golang, C, Haskell
Web Development Languages: HTML & CSS, JavaScript, TypeScript
Frameworks: FastAPI, Flask, Django, React.js, Next.js, Node, limited Angular knowledge
Database: MySQL, mongoDB, Redis
Others: Docker, Kubernetes, Amazon Web Services, IBM Cloud

TECHNICAL WORK EXPERIENCE

Software Engineer Intern
Spend Business Experience Team, Wise (formerly TransferWise), UK | June 2022 - September 2022

- Worked with the team to deliver the web frontend experience for new features, e.g. business card cashback and rewards
- Independently created and owned the backoffice tool that is used by customer service agents to answer queries about aforementioned features
- Implemented a feedback form for cardholders to give feedback directly to a dashboard
- Contributed to multiple projects e.g. custom business debit card logos and the ability to edit card delivery address on web, reducing over 1000 customer service contacts
- Assisted engineers in refactoring codebases, switching out animation assets and refreshing user interface, resulting in parity of features between all platforms

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

2022/2023:
- Became lead TA for the group software engineering project in second year, managing GitHub enterprise access for over 200 members and mentoring groups
- Continued hosting weekly seminars for first year students

2021/2022:
- Hosted weekly 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
- Nominated for the Inspiring and Innovative Teaching (Team) Award for creating an active and interactive environment inclusive of all learners by allowing space for experimentation, risk taking, and learning from making mistakes

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

- Collaborated 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
- Conceptualised and coded the infrastructure for first 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
- Devised and deployed a backend for an admin panel so clients can spend credits to generate human-like speech using text
- Led the migration of numerous Flask APIs to FastAPI and implemented schema validation, session management on multiple workers using Redis
- Improved usage analysis tools which reduced development time and lowered operating costs by 5%

OTHER WORK EXPERIENCE

Student Laptop and Mobile Clinic Technician (September 2021 - June 2022) / Supervisor (June 2022 - Present)
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
- Gathered and documented knowledge in wiki given by senior staff In addition to personal experience from asking as many questions as possible during triage, allowing me to complete tickets more efficiently

Technical Events Officer (May 2021 - May 2022) / Vice-President (May 2022 - Present)
University of Bristol Computer Science Society, UK | May 2021 - Present

- Planned technical events roadmap such as hackathons and CTFs for the year
- Successfully organised two major events that had over 150 attendees total by meeting with sponsors and committee members regularly and using Trello for project management

ACHIEVEMENTS AND ACTIVITIES

University of Bristol CSS x Boeing Hackathon 2022
Honourable Mention | Feb 2022

- Created GreenMap, a navigation platform that aggregates data from multiple transit providers such as Voi and TransportAPI to show carbon emissions for journeys to encourage more informed choices during travel
- Built using React as the frontend and FastAPI as the backend

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
- Programmed 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

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
- Independently gained a deeper understanding of core AWS services, security architecture and pricing using an online learning platform

PROJECTS

University of Bristol Computer Science Society / CSS website (cssbristol.co.uk)
In development | May 2022

- Assisting in the design refresh of the CSS website to include new webstore and sponsorship admin panel using Gatsby and FastAPI

Personal website (mitchlui.dev)
In development | March 2022

- Created a static website in React to practice frontend programming skills and showcase personal projects
- Currently rewriting to use Next.js and adding storybook support for component testing

Other projects can be found at https://mitchlui.dev/projects

LANGUAGES

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