

Michael Tsang

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Summary

Final year Imperial College student with a range of experiences in computer science from education, industry, and the wider community - including contributions to open source, teaching to young students, and development of applications from idea to product. Has a particular interest in distributed systems and functional programming.

Education

Imperial College London

London

MENG IN COMPUTING (PREDICTED FIRST CLASS)

Oct 2016 - Jun 2020

- Modules include: 81% Type Systems, 81% Distributed Algorithms, 79% Information and Coding Theory.
- Engineering **Dean's List** for top 10% performance in second year.
- Won **Morgan Stanley Prize** for top 12 first year students.

Work Experience

Jetstack

London

SOFTWARE ENGINEER INTERN

Apr 2019 - Sep 2019

- Completely rewrote the frontend of *Flightdeck* (a web application for Kubernetes training) to **Elm** best practices, facilitating and subsequently supporting the onboarding of a new frontend engineer.
- Contributed to *Cert-Manager*, the **open source Kubernetes** project for managing TLS certificates, becoming the 5th top contributor at the time.
- Co-led the design and implementation of *Aerodrome*, a platform for the provisioning of arbitrary environments to host *Flightdeck* training scenarios upon, building **Kubernetes controllers** in **Go** and making thorough use of **Docker** and **Google Cloud**, cutting the running cost of *Flightdeck* versus the existing third party service.
- Participated in bi-weekly sprint planning, sprint retrospectives, and daily stand-ups, gaining industrial experience of **Agile** development.

Ocado Technology

Hatfield

TECHNOLOGY INTERN

Jul 2018 - Sep 2018

- Connected together several pieces of sensor hardware with several **computer vision** libraries to develop a single **C++** library with which to track the real time movements of a person.
- Developed the library into an **Electron** application *robot-video-conf*, transmitting and mapping the movements to a remote, life-size, robotic upper body to make video conferencing more engaging and interactive.

Projects

Aspect Based Sentiment Analysis (ABSA)

Available on GitHub

THIRD YEAR GROUP PROJECT

Oct 2018 - Dec 2018

- As a group of 6, developed a rule-based NLP solution for the extraction and storage of entity-attribute pairs with their calculated sentiment from news articles using **Python**, streamlining the work of a financial analyst by providing easy access to aggregated sentiment and relevant quotations for companies of interest.
- Further showcased the use of the solution by building a demo application with a **RESTful Python** backend and **React** frontend.

Lembas

Available on Request

WEBAPPS GROUP PROJECT

Jun 2018

- In a group of 4, developed a full stack **React/Node/PostgreSQL** web application for the creation and sharing of meal plans, helping to combat the issue of unbalanced diets by providing a method of communication between nutritionists and everyday people.
- Implemented **human-centered-design** techniques including user stories and micro-iterations from demoing and surveying potential users, ensuring all committed changes were improvements to the user experience.

Extracurricular Activity

Imperial College London (Department of Computing)

London

PERSONAL PROGRAMMING TUTOR

Oct 2018 - Mar 2019

- Ran a weekly tutorial with a group of 8 first-year students to supplement their **Haskell** and **Java** learning, expanding their knowledge of algorithms and good software design practices.
- Marked and gave feedback to weekly assignments, highlighting mistakes and ways to improve.

Robogals London

London

TRAINING MANAGER

Apr 2017 - Apr 2018

- Regularly volunteered to teach classes of schoolchildren in workshops to program **Lego robots**, introducing them to the basics of programming.
- Prepared and led training days to on-board new volunteers, simultaneously also introducing many to programming as well.
- Designed new workshops and teaching materials to increase the range of skills taught by the society.