

# Tsz Yin Yung

FINAL YEAR MECHANICAL ENGINEERING STUDENT AT IMPERIAL COLLEGE LONDON

Hammersmith, London

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## Education

### Imperial College London

MENG IN MECHANICAL ENGINEERING

London, U.K.

Oct. 2019 - Present

- Expected graduation: June 2023. On track for 2:1.
- Relevant Courses: Machine Learning, Statistics

### Victoria Shanghai Academy (VSA)

INTERNATIONAL BACCALAUREATE DIPLOMA PROGRAMME

Hong Kong

Aug. 2007 - Jun. 2019

- Achieved 44 out of 45 (Top 0.78% Globally)

## Work Experience

### RBC Capital Markets

FX eTRADING SUMMER ANALYST, QUANTITATIVE TECHNOLOGY SERVICES

London, U.K.

Jun. 2022 - Aug. 2022

- Developed an automated trade reconciliation system for forex execution algorithms to identify position breaks, extracting insights through analytic methodologies from large-scale historical and real-time trade databases containing 100,000+ orders with kdb+/q.
- Analyzed order execution report data to validate appropriate implementation of algorithmic trading strategies with Excel.
- Created procedures for order execution visualization and cross currency triangulation trade analysis to support algorithm development.

### Environmental Resources Management (ERM)

RISK & SAFETY CONSULTING INTERN

Hong Kong

Jun. 2021 - Sep. 2021

- Produced numerous Quantitative Risk Assessments (QRA) for developments surrounding liquified petroleum gas terminals, chlorine storages at water treatment works, and high-pressure pipelines with PHAST and SAFETI.
- Facilitated Process Hazard Analysis (PHA) such as Hazard and Operability Studies (HAZOP) for hydrocarbon plants.
- Designed comprehensive methodology for 3D digital terrain mesh reconstruction from LiDAR point cloud data in MicroStation and ANSYS ICEM for subsequent computational fluid dynamics (CFD) dust dispersion modelling in CFX.

### Electrical and Mechanical Services Department (EMSD)

GAS STANDARDS INTERN

Hong Kong

Jun. 2020 - Aug. 2020

- Contributed to development of machine-learning chatbot through refinement of 100+ possible inputs and results.
- Proposed remote-controlled drone for gas tanker vessel inspection with ultrasonic and digital mapping technologies to ensure personnel safety.
- Investigated China's Zhejiang gas tanker explosion, analyzing possible causes and distinctions in gas safety requirements.
- Updated and maintained public forms used yearly by 90+ registered competent persons.

### Self Employed

MATH, PHYSICS & SAT TUTOR

Hong Kong

Jun. 2019 - Sep. 2021

- Tutored high-school students in mathematics, physics and SAT, with a student achieving a SAT score of 1550 out of 1600.
- Translated complex technical topics into simple concepts, and supported students with personalized lessons.

## Extracurricular Activities

### Imperial College Chinese Society

PUBLICATIONS OFFICER

London, U.K.

Jun. 2020 - Aug. 2021

- Organized and coordinated events from socials to workshops in collaboration with the committee and other societies.
- Managed various social media accounts to maximize community engagement across 3,700+ followers.
- Created promotional material (ie. booklets, posters, videos) to increase event awareness and participation.

### Engineering Change

MEMBER

London, U.K.

Oct. 2020 - May. 2021

- Collaborated with students of different disciplines with the Embassy of Nicaragua to design and construct smart equipment to assist with education, including, solar panels, water supply, reforestation and river water cleaning strategies.

## Skills

**Skills:** Java, Python, Kdb+/q, SQL, Embedded C, SolidWorks, MicroStation, SketchUp, ANSYS ICEM, PHA-Pro, LaTeX

**Interests:** Boulderering, Chess, Photography

**Languages:** English (Native), Cantonese (Native), Mandarin (Intermediate)