Siu Kai Cheung, Civil Engineering Student

(437) 970-6389, siukai.cheung@mail.utoronto.ca

PROFILE

Passionate civil engineering student with internship experiences in the industry who is enthusiastic about solving unique challenges. Strive to improve the design and analysis process in the civil engineering industry with cutting-edge computer technology.

EDUCATION

| Sep 2018 — May 2022 | **Bachelor of Applied Science, University of Toronto** | Toronto |

Major in Civil Engineering | Minor in Engineering Business | Artificial Intelligence Certificate

Dean's Honour List

EMPLOYMENT HISTORY

| May 2020 — Aug 2020 | **Geomechanics Assistant, Rocscience Inc.** | Toronto |

- Researched and implemented novel computational methods of pile load capacity; enhancing new features in the compute engine in C++
- Tested new features with verification models generated in Excel and VBA
- Delivered full product features underneath a 2-month timeline through effective productivity and self-learning

| Jul 2019 — Aug 2019 | **Digital Assistant, Campus Development Office-Hong Kong University of Science and Technology** | Hong Kong |

- Modelled the HKUST campus in Autodesk Infraworks using ArcGIS data
- Helped to build a multidimensional model in Infraworks and Revit to manage facilities on campus
- Won Industry Influencer Award of Autodesk Hong Kong BIM Awards 2020

| May 2019 — Jul 2019 | **Structural Design Assistant, W&O (Civil-Structural Engineering)** | Hong Kong |

- Designed and analyzed elevator towers for schools under the Education Bureau using SAP2000
- Developed an Excel sheet to calculate the design wind load on the tower
- Collaborated with engineers to deliver quality proposals and drawings for authority's approval

---

EXTRA-CURRICULAR ACTIVITIES

| Sep 2020 — Present | **Design and Analysis Lead, University of Toronto Seismic Design Team** | Toronto |

- Researched and implemented new formulations for the Center of Rigidity for high-rise buildings in Python; effectively reducing the torsional effects by 35%
- Design and develop the code structure of the Graphical User Interface for the in-house automation program using PyQt (Python); accelerating the development process through object-oriented design
- Researched and performed topology optimization for high-rise structures using Altair Hypermesh; generating multiple conceptual designs

| Sep 2020 — Present | **Engineering Campus Experience Officer, University of Toronto** | Toronto |

- Generated events and workshops with a student-led team to build an inclusive student community
- Documented the event engagement and participation for future improvement
- Mentored students in their academic studies and mental development

| Sep 2019 — May 2020 | **Construction Lead, University of Toronto Seismic Design Team** | Toronto |

- Managed general member in building the tower under a tight timeline
- Designed the tower jig and gusset plates using AutoCAD

SKILLS

Python	SAP2000
C++	Autodesk AutoCAD
Java	Altair Hypermesh
Excel VBA	Google Sketchup