

## MADELINE LUI

madelinewylui@gmail.com   Portfolio   GitHub

---

SUMMARY

First Class BSc Graduate experienced in statistical computing and analysis in Python, MATLAB, R. Proficient in Excel.

---

EXPERIENCE**Personal Project**

Solar Power Generation Analysis

2024

- **Predictive modelling:** Time-series forecast of PV panel power generation over the next 7 days, from a PV panel system in India over 35 days.
- **Performance Analysis:** Evaluated power conversion efficiency and monitored panel temperature.

**Muckli Lab, University of Glasgow**

2023—2024

Research Assistant Intern

The Muckli Lab uses functional magnetic resonance imaging and computational neuroscience to study predictive coding.

- **Programming:** Developed an interactive user interface using Python and analysed large datasets of images containing object occlusions.
- **Statistical computing:** My bachelor's project investigated predictive processes through functional magnetic resonance imaging data. I self-learned MATLAB to implement the following statistical methods:
  - Multivariate pattern analysis of neural representations of objects, using representational similarity analysis.
  - Bootstrap analysis for experimental simulation.

---

ADDITIONAL TRAINING**MIT OCW**

2024

Mathematics modules: Differential Equations

**Imperial College London**

2022

Mathematics modules: Linear Algebra, Multivariate Calculus.

---

AWARDS**BPS Conference Award**

2024

**Communication skills:** Dissertation research awarded Best Presentation in Cognition and Perception at the annual undergraduate conference hosted by the British Psychological Society.

---

VOLUNTEERING

Children's Ministry Hong Kong and Scotland

2019 — 2023

- **Leadership:** Led Sunday church programs for children from ages 5-12 and meetings with volunteers.
- **Adaptability:** Reacted to last-minute changes, such as under-staffing, by stepping-in and conflict management.
- **Planning skills:** Coordinated the curriculum and delegated responsibilities.

---

PROGRAMMING LANGUAGES

Python, MATLAB, R

---

EDUCATION**University of Glasgow (First Class Honours)**

2020 — 2024

BSc (Hons) Psychology with Neuroscience Specialism

**United World College Li Po Chun, Hong Kong**

International Baccalaureate Diploma Programme

---

LANGUAGES

English

Native/bilingual

Cantonese

Native/bilingual

French

Full professional proficiency