

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

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