

# Seymour Lopez

MPhil, MRes, MSc, BEng

Email: seymour.lopez.18@ucl.ac.uk

Phone number: 07508794656

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## **Education:**

### **MPhil: Medical Imaging, University College London 2018-22.**

- Used Python for implementing disease progression models on the Epilepsy-ENIGMA cohort.
- Implemented artificial neural networks using Tensorflow library in Python to predict treatment response from multiple neuroimaging modalities from the UK Biobank.
- Used Plink to perform a GWAS study that estimated the impact of SNPs on atrophy of grey matter in patients with epilepsy from the UK Biobank.
- Survival analysis to study the effect of drugs on the survival of cancer patients on a simulated dataset.
- Manual inspection of T1W MRI scans to identify lesioned patients on a local dataset.
- Running FreeSurfer on MRI scans and extracting cortical thickness and surface areas.
- Collaborated with colleagues to contribute towards novel disease clustering software.

Link to papers published: <https://www.researchgate.net/scientific-contributions/Seymour-M-Lopez-2175523286>

1. 1<sup>st</sup> author: Event-based modelling in temporal lobe epilepsy demonstrates progressive atrophy from cross-sectional data.
2. 2<sup>nd</sup> author: Increased facial asymmetry in focal epilepsies associated with unilateral lesions.
3. Contributing author: The ENIGMA-Epilepsy working group: Mapping disease from large data sets.

### **MRes: Biomedical Science, University of Glasgow 2017-2018.**

- Researched changes in gene expression in Leukaemic cells by reviewing literature and designing experiments.
- Investigated the effects of palmitoylation in cardiac cells and its effect on heart diseases.

### **MSc: Biomedical Engineering, University of Strathclyde 2015-2016.**

- Developed virtual reality application to teach eye surgery to ophthalmologists using C# in Unity3D.
- Researched requirements of CE markings and rules for deploying medical devices on the market.

### **BEng: Electronics and Telecommunications, University of Mumbai 2008-2012.**

- Developed wireless ECG monitoring system to monitor multiple patients.
- Programming languages covered over course include C++, Java and assembly language programming.

## **Professional certifications:**

Power BI Essential Training: linkedin learning

PostgreSQL Client Applications: linkedin learning

Building an ISO 27001-Compliant Cybersecurity Program: linkedin learning