

# RICHARD MENZIES

TEL: 07842 392870 | EMAIL: [r.menzies.1@research.gla.ac.uk](mailto:r.menzies.1@research.gla.ac.uk)

## EDUCATION

---

### University of Glasgow | PhD

2022 – Present

*Studying Neural Network Topology Optimisation*

### University of Glasgow | First Class Honours

2018 – 2022

*First Class BSc(Hons) in Computer Science*

*Won achievement award for top 5% in the year*

## EXPERIENCE

---

### Conferences

- **BMVC 2024 Doctoral Consortium Chair** - Currently organising the BMVC 2024 Doctoral Consortium taking place at BMVC 2024, November 25th - November 28th.
- **WCCI 2024 (IJCNN branch) | Soft Pruning and Latent Space Dimensionality Reduction** - Uses a novel method of decay based pruning to remove weights. Additionally applies this method to the latent space of an autoencoder - removing nodes from the latent space - with a high level of success.

### Tutoring

- **Data Fundamentals(H)** 2024 – 2025
- **Artificial Intelligence(H)** 2022 – 2023
- **Network Systems(H)** 2022 – 2023

### Open Source Coding

- **Currently contributing** to [GODOT](#) (C++)
- Previously contributed to [Inkscape](#) (C++), [GitUI](#) (Rust)

### Internships

- **University of Glasgow | Research Internship** - Studied Neural Network Weight Initialisation methods with an aim of extending He initialisation to a variety of different activation functions.

### Technologies

- Previously Programmed in: Python, C++, Rust, Go, HTML/CSS/JS/Vue, Java, C#(Unity), C, Flutter.
- Use **Python** and **PyTorch** significantly within my PhD implementation. Use **Linux (Manjaro)** as my main OS.

### Projects

- **4th Year Individual Project** - Developed a new type of Neural Network as an alternative to the MLP which should achieve better information representation and higher accuracy using topology optimisation.
- **PhD Implementation** - Wrote a python library for running neural networks that can have dynamic topology changes while running, something which occurs in Neural Topology Optimisation. Make use of this extensively in my PhD.

## CLUBS AND SOCIETIES

---

### Glasgow Polytechnic Chess Club | Treasurer

2024 – Present

- Organising Chess960 friendly matches and tournaments for the club.

### GU Physics Society | Secretary

2020 – 2022

*University of Glasgow*

*OCM 2019 - 2020*

### GU Table Tennis Club | Founder & President

2019 – 2022

*University of Glasgow*

## ADDITIONAL INFORMATION

---

**Hobbies:** Running, Piano, Chess, Learning French (attending class at B1+ level)

**Boards:** Student Member of the University of Glasgow Strategic Advisory Board