

# Melina Müller

Email: [m.m.mueller@sms.ed.ac.uk](mailto:m.m.mueller@sms.ed.ac.uk) • LinkedIn: [Melina Müller](#) • GitHub: [Melina-M-Mueller](#)

PhD student in Computational Neuroscience with research experience in Machine Learning, computational modeling, and human neural signal processing. Wants to apply multidisciplinary scientific skills to develop neural interfaces.

## Education

Sep 2024 – Present	<b>PhD AI in Biomedical Innovation</b> • University of Edinburgh <ul style="list-style-type: none"><li>Thesis: Data-Driven Model-Based Closed-Loop Control of Neural Dynamics to Restore Function in Human Neurological Conditions; <i>Supervisors</i>: Dr Nina Kudryashova, Prof Matthias Hennig</li></ul>
Sep 2023 – Aug 2024	<b>MSc Cognitive Science</b> • University of Edinburgh <ul style="list-style-type: none"><li>Grade: Distinction (3.98 / 4.0 GPA)</li><li>Thesis: Using Tensor Decomposition to Understand the Emergence of Recurrent Neural Networks’ Dynamics; <i>Supervisor</i>: Dr Angus Chadwick</li></ul>
Sep 2019 – Jun 2023	<b>BSc (Hons.) Mathematics and Psychology</b> • University of Stirling <ul style="list-style-type: none"><li>Grade: First Class with Honours (3.97 / 4.0 GPA)</li><li>Thesis: Application of Tensor Decomposition for Neural Signal Processing; <i>Supervisor</i>: Dr Wen-shin Lee</li></ul>

## Publications

Nov 2024	<b>Mueller, Melina</b> ; et al.(2024). Automated face recognition assists with low-prevalence face identity mismatches but can bias users. <i>British Journal of Psychology</i> . <a href="https://doi.org/10.1111/bjop.12745">https://doi.org/10.1111/bjop.12745</a>
----------	---

## Research Experience

May 2023 – Jul 2023	<b>EPS New Graduate Research Project</b> • University of Stirling <ul style="list-style-type: none"><li>Conducted a first-authored, self-proposed research project on human-computer interaction during AI-assisted face recognition</li><li>Designed the decision-making study to reflect real-world application</li><li>Developed novel quantification metrics to assess the behavioural data</li></ul>
Jul 2023 – Aug 2023	<b>Research Assistant in Health Psychology</b> • University of Stirling <ul style="list-style-type: none"><li>Studied how individuals’ illness perceptions impact their mood and health</li><li>Performed statistical analyses on cross-sectional, quantitative study results</li></ul>
Jan 2022 – May 2023	<b>Volunteer Research Assistant in Cognitive Science</b> • University of Stirling <ul style="list-style-type: none"><li>Developed a Virtual-Reality environment for studying EEG activity during joint action using the Unity game engine and C#</li><li>Presented and demonstrated the work in a Master’s course</li></ul>

---

## Other Work Experience

---

Feb 2025 –  
Jun 2025

### Python Course Developer • University of Edinburgh

- Created a Jupyter book teaching Python for Bioinformatics to beginners
- Collaborated in a team of five to design and implement the course
- Explained complex programming concepts through relevant use-cases

Sep 2022 –  
Apr 2023

### Volunteer Mentor • University of Stirling

- Held mentoring seminars for first-year psychology students
- Expanded leadership abilities by helping students form a community
- Increased teaching and research-related skills through instructing practical topics such as academic writing and time management

Aug 2017 –  
Sep 2017

### AI-Tech Start-Up Intern • Parkbob GmbH

- Facilitated data collection and annotation for training computer vision models
- Executed general administrative and team coordination tasks
- Gained insight into how AI research is translated to commercially viable technology

Jan 2016 –  
Present

### Tutoring

- Tutor periodically at university and privately in Mathematics & Statistics
  - Improved students' grades and understanding by listening to problems and finding creative pedagogical approaches
  - Curated teaching materials and plans tailored to students' individual needs
- 

## Awards & Certificates

---

### Awards

- The Phyllis Lee Prize for the best Combined Honours Psychology student
- Prize for outstanding performance in year 2 mathematics module

### Certificates

- First Aid for Mental Health - Level 2 • First Aid Awards
  - Good Clinical Practice (GCP) Certificate • NIHR
  - Research, GDPR, and confidentiality • UKRI
- 

## Skills & Interests

---

### Software Experience

- |   |           |
|---|-----------|
| • Python (incl. NumPy, Scipi, Matplotlib)       | • Jupyter |
| • ML and DL tools (incl. Pytorch, Scikit-learn) | • Git     |
| • Neural data analysis (incl. MEAs, fMRI)       | • Unity   |
| • MATLAB  | • Java    |

### Languages

- |                            |                        |
|----------------------------|------------------------|
| • German (native language) | • English (proficient) |
|----------------------------|------------------------|

### Interests

- |   |  |
|---|--|
| • Judo: promotes self-discipline and control;<br>Was secretary for Stirling's Judo Club | • Fibre arts: sewing,<br>knitting, crochet |
|---|--|
-