Siobhan Mackenzie **Hall**

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Academics

University of Oxford (DPhil Surgical Sciences, October 2021 -)
- [Oxford Neural Interfacing](#), led by Professors [James FitzGerald](#) and [Brian Andrews](#)
- Thesis: Electrode Design for Localised Cortical Stimulation - A Computational Study

Stellenbosch University (Master of Physiotherapy, 2018 – 2019, average 81 %)
- Biomedical Engineering Research Group
- Thesis: [Determining the nature of free will using machine learning](#)

University of Pretoria (Bachelor of Physiotherapy, 2013 – 2016, average 78 %)
- Thesis: The effect of positive expiratory pressure on the airway hyper-reactivity in the partially controlled to uncontrolled adult asthma patient

Experience

Google DeepMind: Research Intern (September 2024 – February 2025)
- Contributed to the research and development of methods, such as regularisation, to adapt models in the fine-tuning stage to improve outcomes on standardised fairness metrics

Microsoft Research: Engineering Intern (May 2024 – August 2024)
- Contributed to the research development and engineering of a data flywheel to support under-represented communities by building a platform to responsibly collate data and develop deep learning models for classifying and generating long-tail concepts

Mamba Insights: Software Engineer (September 2020 – July 2021, part time)
- Created unique algorithms to generate business insights based on the inference of deep learning models on CCTV footage. These were deployed to production in June 2021

Aerobotics: Data Science Internship (December 2019 – February 2020)
- Developed an automated feedback loop for assessment of model accuracy in automatic labelling of fruit. These labelled data and models laid the foundation for further investigation into methods for automated assessment and is an open question

Tembisa Provincial Tertiary Hospital: Community Service Physiotherapist (2017)
- Frontline clinical physiotherapist, working in multidisciplinary teams in high-pressured departments such as adult and neonatal intensive care units and out-patient departments

Selected Publications *Please see Google Scholar for a comprehensive list*

The World Wide recipe: A community-centred framework for fine-grained data collection and regional bias operationalisation ([ACM FAccT 2025 Best Paper: Honourable Mention](#)) || Jabez Magomere, Shu Ishida, Tejumade Afonja, Aya Salama, Daniel Kochin, Foutse Yuehgoh, Imane Hamzaoui, Raesetje Sefala, Aisha Alaagib, Samantha Dalal, Beatrice Marchegiani, Elizaveta Semenova, Lauren Crais, **Siobhan Mackenzie Hall**

VisoGender: A dataset for benchmarking gender bias in image-text pronoun resolution ([NeurIPS 2023: Track on Datasets and Benchmarks](#)) || **Siobhan Mackenzie Hall**, Fernanda Gonçalves Abrantes, Hanwen Zhu, Grace Sodunke, Aleksandar Shtedritski, Hannah Rose Kirk

SMRS: advocating a unified reporting standard for surrogate models in the artificial intelligence era ([NeurIPS 2025: Position Papers](#)) || Elizaveta Semenova, Alisa Sheinkman, Timothy James Hitge, **Siobhan Mackenzie Hall**, Jon Cockayne

The Human Labour of Data Work: Capturing Cultural Diversity through World Wide Dishes ([CSCW 2025](#)) || **Siobhan Mackenzie Hall**, Samantha Dalal, Raesetje Sefala, Foutse Yuehgoh, Aisha Alaagib, Imane Hamzaoui, Shu Ishida, Jabez Magomere, Lauren Crais, Aya Salama, Tejumade Afonja

A Prompt Array Keeps the Bias Away: Debiasing Vision-Language Models with Adversarial Learning ([AACL 2022](#)) || Hugo Berg, **Siobhan Mackenzie Hall**, Yash Bhalgat, Wonsuk Yang, Hannah Rose Kirk, Aleksandar Shtedritski, Max Bain

Finite Element Modelling for Biophysical Models of Nervous System Stimulation: Best Practices for Multiscale Adaptive Meshing ([IEEE Transactions on Neural Systems and Rehabilitation Engineering](#)) || Rodrigo Osorio L., **Siobhan Mackenzie Hall**, Francisco Saavedra R., Pablo Aqueveque N., James J. FitzGerald, Brian Andrews

Awards and Grants

2025 ACM FAccT's Best Paper Award: Honourable Mention
- The World Wide recipe: A community-centred framework for fine-grained data collection and regional bias operationalisation

Google's Compute for Underrepresented Researchers Grant (2023, 2024)
- Awarded $20 000 in GCP credits for my work in investigating social biases in large vision-language and generative models

OpenAI's API Researcher Access Programme (2024)
- Awarded $20 000 in API credits for my work in investigating social biases in large language and vision-language models

Leadership and Service

Deep Learning Indaba Steering Committee
- **Mentorship Programme** (2020 -)**:** We have facilitated > 600 successful matches, with many success stories of papers being accepted and mentees successfully getting into postgraduate programmes
- **Ideathon Programme** (2022 -)**:** Assist in planning and managing the programme to facilitate research and application-based projects on the African continent
- **Communications Committee** (2022 -)**:** Manage and support external communications from the Deep Learning Indaba, most notably as editor of the Sauti Yetu newsletter.

Peer review for AI/ML conferences
- Neural Information Processing Systems Main Track 2025
- ACM Conference on Fairness, Accountability, and Transparency 2025

Workshop Organiser committee roles
- **Trustworthy AI Workshop:** Deep Learning Indaba 2023, 2025; IJCAI 2024
- **Centring Data in African AI:** Deep Learning Indaba 2025

Notable Extra-curriculars

The Neural Engineering Research Venture (NERV) 2020 - 2021) || [NERV's YouTube](#)
- Co-host of a webinar focused on AI and computational neuroscience, with an audience that extended across five continents, including more than 20 African countries