# dr. Sreejita Ghosh

*Curriculum Vitae*

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≈ 5.5 years of post-PhD experience in interdisciplinary research involving anthropocentric applications of Machine learning (ML) and explainable AI (XAI), small and large datasets (e.g., MIMIC-IV, UK Biobank). Currently working in Uncertainty Quantification (UQ) & Causal ML.

## Current positions

11/2025- **Senior postdoc researcher**, *A3 lab*, Orthopaedics, UMC Groningen, NL,
• Multidisciplinary research collaboration and supporting stakeholders within healthcare across the NL, Australia and the US.
• Developing Causal ML based reliable and personalized clinical decision support..

## Previous positions

06/2023-10/2025 **Postdoc**, *Co-leader of ITEA DAIsy WP4, from the M&CS*, TU Eindhoven, NL,
• International Journal of Eating Disorder (2025) invited commentary on Linardon et al (2025),published on 15/04/2025.
• Published review paper on AI interventions for clinical management of ED (first-authored), expanding on working paper prototype based XAI for set classification to clinical outcomes.
• Co-supervised final thesis of 2 BSc. & 1MSc. Comp. Sc. students at the TU/e.
• Developing interpretable and Causality based ML for personalized outcome prediction. Presented proof-of-concept at late summer edition of AMALEA 2024
• Co-organized hybrid workshop of AI based clinical decision support tools for Major Depressive Disorder (MDD) and Eating Disorder (ED), involving academic, clinical, and industry partners from 3 EU countries of WP4 of DAIsy (during 14/10/2024-16/10/2024).
• Co-organized a meeting of AI and Eating disorder (ED) experts to identify and address the limitations of existing AI interventions in clinical management of ED (on 13/09/2024).
• Initiated and leading a consortia with clinical, industry and academic partners in the EU for cross-border socio-economic cooperation between the Netherlands and Germany.

09/2021-06/2023 **Postdoc**, *Institute of Risk Assessment Sciences (IRAS), **U**trecht **U**niversity*, NL,
• Collaboration with Environmental Epidemiologists, Bio-statisticians, Cardiologists, and other Cardiovascular disease (CVD) researchers.
• Co-supervision of Epidemiology Masters students on 13-month final project.
• Set up Github organization for IRAS and taught group members the basics of Git.
• Lectured and co-supervised labs in Molecular Epidemiology Course 2022 (19/04), and UU Summer School on Big Data (15/08), aimed at medical and epidemiology students. .

10/2016-09/2021 **PhD student**, *Bernoulli Institute of Mathematics, Computer Science & AI*, University of Groningen, NL, successfully defended thesis **Intrinsically interpretable machine learning in Computer-Aided-Diagnosis** on 10/09/2021 (supervisors: Profs. K.Bunte & M.Biehl).
• Developing ML models capable of handling even systematic missingness which is one of the biggest weaknesses of real-world datasets, learning from high dimensional but low sample size data, which could be easily explainable to clinicians, thus gaining their trust.
• Close collaboration with medical teams at Institute of Metabolism and Systems Research, University of Birmingham, and University Medical Centrum Groningen, understanding their needs, and translating their needs into novel ML algorithms.
• Supervision of 3 Bachelors and 4 Masters student project (papers currently being prepared)
• Graduate Teaching Assistant for courses 'Introduction to Data Science', 'Neural Networks and Computational Intelligence', and 'Modelling and Simulation'
• Presented first-authored work at prestigious conferences such as European Symposium of Artificial Neural Networks 2017 and IEEE International Joint Conference on Neural Networks 2020, along with presenting at international workshops in Germany and in the Netherlands.
• On 21/03/2017 secured 1st place in the Health track of poster competition at ICT.Open 2017, at Amersfoort, by presenting work on computer aided diagnosis of rare and inborn steroidogenic disorders in children.

02/2016-07/2016 **Master thesis student**, *Philips Research, Eindhoven, The Netherlands*,
• Learned a *Nearest prototype based classifier (NPC)* and applied it on a real-life medical dataset to predict the severity of heart failure patients admitted in a hospital.
• Learned first-hand the difference in motivation and resource constraints in academic and industry research, submitted thesis titled **Heart Failure Severity Prediction From Medical Records** (supervisors: Dr. G.J. de Vries, Dr. R.J. Renken, & Prof. M.Biehl).

## Education

10/2016-01/2019 **Successful completion of courses during PhD**, *University of Groningen*, the Netherlands: , "Introduction to Data Science", "Neural Networks and Computational Intelligence", "Course on computer clusters by CIT".

09/2014-09/2016 **Master's Degree Biomedical Engineering (specialization: Diagnostic imaging and instrumentation)**, *University of Groningen*, Faculty of Science and Engineering.

06/2010-05/2014 **Bachelor of Technology, Biomedical Engineering**, *Vellore Institute of Technology*, VIT University, India.

## Certificates and Professional Skills

03/2024 **CITI certification for Human Research**, *Data or Specimens only research (Basic course)*.

10/2022 **Epidemiology for Public Health by Dr. Filippos Filippidi, Imperial College London (via Coursera)**, *(1) Measuring Disease in Epidemiology, (2) Study Designs in Epidemiology, and (3) Validity and Bias in Epidemiology*.

11/2019 **Certificate from I am a scientist, UK**, *Academy Zone*, Online training course of science engagement competition.

Languages **Python, Matlab, LaTeX and R (all very good), and Bash (for HPC clusters)**.

Version control **Github, Gitlab**.

OS **Ubuntu, Windows**.

Project management **Agile, Slack, Github, Teams**, *Used Agile (Scrum) during Master thesis project at Philips Research. Since PhD, using Github, and since DAIsy using Teams*.

## Published work

My Google Scholar page.

## Personal skills

Science communicator Can communicate complex technical ideas and findings to domain experts from other domains, to general public, and to school students.

Efficient project leader Anticipate and mitigate hindrances impacting deliverables deadlines.

Languages English (native), Dutch (≈B1), Bengali (native), Hindi (good), German (A1).

## Extra-curricular

Science outreach Enjoy talking to school students about ML and Biomedical Engineering, and inspiring them towards a career in Science and Engineering. , *'Scientist of the week' in Coding Zone of I am a Scientist, UK, Stay at home edition* .

Hobbies **Acrylic & oil painting (impressionist style), doodles,** squash.

## Referees

Available on request