

Daniel Roelfs, PhD



WORK EXPERIENCE

DNB - GROUP SECURITY - GROUP AML

2022 - CURRENT

Data Scientist

- Data scientist in the Anti-Money Laundering Group at DNB
- Creating machine learning models using Python, R, and AWS cloud services and putting models in production

UNIVERSITY OF OSLO - NORMENT - MULTIMODAL IMAGING GROUP

2019 - 22

Doctoral Research Fellow

- PhD position on neuroimaging and genetics
- Running a study from conception through writing the final manuscript, analysis in R, Python, MATLAB, and a variety of additional tools

UNIVERSITY OF OSLO - NORMENT - EEG GROUP

2018 - 19

Research Assistant

- Managing EEG data, data preprocessing and analysis, training new EEG testers, performing EEG experiments

RIKSHOSPITALET - DEPARTMENT OF MEDICAL PHYSICS

2018 - 19

Research Assistant

- Data collection, management, and processing in an MRI study on sleep deprivation
- Processing and analyzing of data from the video camera

EDUCATION

UNIVERSITY OF OSLO - FACULTY OF CLINICAL MEDICINE

2019 - 22

PhD, Doctoral Education

- Doctoral education at the Institute of Clinical Medicine at the University of Oslo
- Courses relevant to neurobiology, advanced statistics, and other academic and non-academic skills

LUND UNIVERSITY - FACULTY OF MEDICINE**2016 - 18***MSc, Biomedicine*

- Master's program in Biomedicine at the Faculty of Medicine
- Focus on molecular biology and neuroscience

UTRECHT UNIVERSITY - UNIVERSITY COLLEGE ROOSEVELT**2012 - 15***BSc, pre-medical track*

- Major in the pre-medical science track, minor in philosophy
- Liberal Arts & Science program
- Honors College

SKILLS

Daily use of Python, R, SQL (various dialects), bash, AWS, Snowflake, Git, and common packages and module. Experience also with MATLAB, LaTeX, HTML/CSS. Have previously worked with Google Cloud, SLURM.

In addition, I'm familiar with common data science and data engineering frameworks including but not limited to Shiny, Flask, Streamlit, MLFlow, Jenkins, Docker, Airflow, TensorFlow, LangChain, dbt, and various other common tools.

LANGUAGES**DUTCH (C2)****ENGLISH (C2)****NORWEGIAN (C1)****FRENCH (B2)****GERMAN (A2)**

AWARDS**ECIP ORAL FINALIST****2021***World Congress of Psychiatry Genetics*

- Awarded to promising oral presentations from early-career researchers

INTERNATIONAL TRAINING GRANT**2019***Norwegian Research School in Neuroscience*

- Grant awarded to scientists to receive training abroad that'll benefit their research in Norway

SPARBANKEN SKÅNE MASTER PRIZE **2019**

Sparbanksstiftelsen Färs & Frosta, Lund University

- Awarded to the best master theses in the field of neuroscience
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CLINICAL EXPERIENCE**CLINICAL CHEMICAL HEMATOLOGICAL LAB - GELRE APELDOORN** **2016**

Phlebotomist

VARIOUS DEPARTMENTS - GELRE APELDOORN **2016**

Assistant nurse

COMMISSIONS**DNB DATA SCIENCE MEETUP** **2023 - 2024**

Committee Member

NRSN ANNUAL CONFERENCE **2019 - 21**

Committee Member

- Organization of the national conference of the Norwegian Research School for Neuroscience its members

THE NETHERLANDS RED CROSS STUDENT DESK ZEELAND **2014 - 15**

General Board Member (Fundraising portfolio)

PORTFOLIO

I occasionally write blogposts that serve as tutorials or showcases for how I solve certain data science problems

DANIELROELFS.COM

- Includes tutorials on statistics ([link](#), [link](#)) and data science ([link](#), [link](#)), [link](#)
- Tutorials contain code written in R and Python, website is generated using Hugo and Quarto hosted through GitHub and Netlify
- Featured on the front page of HackerNews

DANIELROELFS.APP

- Collection of apps for various uses, self-hosted from a Raspberry Pi ([described here](#))
- Apps created in Flask and Shiny

BILKOLLEKTIVET TRIP COST CALCULATOR

- Shiny app to estimate the cost of a car rental through Bilkollektivet

PRESENTATIONS & TALKS

- Slides and resources for public talks, workshops, and presentations I've given since 2019

INTRODUCTION TO BASIC STATISTICS IN R

- Online book to help medical researchers get started in R

SELECTED PUBLICATIONS

- D Roelfs, ..., T Kaufmann *Genetic overlap between multivariate measures of human functional brain connectivity and psychiatric disorders*. *Nature Mental Health*. doi: 10.1038/s44220-023-00190-1 preprint: 10.1101/2021.06.15.21258954
- D Roelfs, ..., T Kaufmann *Shared genetic architecture between mental health and the brain functional connectome in the UK Biobank*. *BMC Psychiatry*. doi: 10.1186/s12888-023-04905-7 preprint: 10.1101/2022.06.24.22276846
- D Roelfs, ..., T Kaufmann *Phenotypically independent profiles relevant to mental health are genetically correlated*. *Translational Psychiatry*. doi: 10.1038/s41398-021-01313-x preprint: 10.1101/2020.03.30.20045591
- I Voldsbekk, ..., D Roelfs, ..., II Maximov *Sleep and sleep deprivation differentially alter white matter microstructure: A mixed model design utilising advanced diffusion modelling*. *NeuroImage*. doi: j.neuroimage.2020.117540 preprint: 10.1101/ 2020.08.24.259432

For an extended list of publications, see the publications list on my website, ORCID or my Google Scholar profile.