# DANIEL ROELFS

Data Scientist working on anti-money laundering for DNB, Norway's largest bank. Previously a biomedical researcher in Computational Psychiatry with a focus on neuroimaging and genetics



# ▲ WORK EXPERIENCE

current 2022

#### **Data Scientist**

Group AML

O DNB

- · 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
- · Application of responsible data science practices in both development and deployment

2022 2019

#### **Doctoral Research Fellow**

Multimodal Imaging group at NORMENT

University of Oslo

- · PhD position on neuroimaging and genetics
- · Running a study from conception through writing the final manuscript
- · Writing scripts and pipelines in R, Python, and MATLAB

2019 2018

#### **Research Assistant**

**EEG Group at NORMENT** 

University of Oslo

- · Managing EEG data, data preprocessing and analysis, training new EEG testers, performing EEG experiments
- · Maintaining and adapting preprocessing pipelines for EEG data

2019 2018

#### **Research Assistant**

Department of Medical Physics

• Rikshospitalet, OUS

- · Data collection, managment, and processing in an MRI study on sleep deprivation
- · Preprocessing and analyzing the imaging data and preparing datasets for collaborators
- · Processing and analyzing of data from the video camera

2018 2017

#### **Erasmus Traineeship**

**EEG Group at NORMENT** 

- University of Oslo
- · Planning and running EEG experiments on participants
- · Processing and analyzing EEG data using MATLAB



View this CV online with links at danielroelfs.github.io/cv/

#### CONTACT

- danielroelfs.com
- daniel@roelfs.net
- in danielroelfs
- danielroelfs
- **M** @dthroelfs
- 0000-0002-1083-002X

#### SKILLS & LANGUAGES

Python SOL MATLAB LaTeX HTML/CSS

Dutch (Native)

English (C2)

Norwegian (C2)

French (B1)

Research Intern 2016 • University Medical Centre Utrecht, NL Brain Institute 2015 · Idenifying risk factors associated with poor prognosis in children with CD or ODD **EDUCATION** PhD, Doctoral Education 2022 Oslo, NO University of Oslo 2019 · 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 MSc, Biomedicine 2018 • Lund. SE **Lund University** 2016 · Master's program in Biomedicine at the Faculty of Medicine · Focus on molecular biology and neuroscience 2015 BSc, Pre-medical track Middelburg, NL University College Roosevelt, Utrecht University 2012 · Major in the pre-medical science track, minor in philosophy · Liberal Arts & Science program · Honors College **Epidemiology (summer course)** 2014 Middelburg, NL University College Roosevelt, Utrecht University · Summer course in theory and methods behind epidemiology French Language & Literature (summer course) 2013 Paris. FR Université de Paris I: Panthéon-Sorbonne · Summer course in French language and literature **&** CLINICAL EXPERIENCE

Apeldoorn, NL

Assistant nurse/phlebotomist

Gelre Hospital Apeldoorn

2016

The PhD program at the University of Oslo has a distinct research component and educational component. Both need to be fulfilled to qualify for the PhD defense.

# **♀** AWARDS

2021 • ECIP Oral Finalist

World Congress of Psychiatry Genetics

· Awarded to promising oral presentations from early-career researchers

2019 • International Training Grant

Norwegian Research School in Neuroscience

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

2019 • Sparbanken Skåne Master Prize

Sparbanksstiftelsen Färs & Frosta, Lund University

· Awarded to the best master theses in the field of neuroscience

## **COMMISSIONS**

Committee Member

2021

2020

2021

2019

2015

2019

NORMENT Early Career Researchers Meeting

- · Organising the conference for early-career researchers at NORMENT
- · Feedback with NORMENT leadership, the venue, and participants

Committee Member

Norwegian Research School in Neuroscience

Organization of the national conference for neuroscience PhD candidates

General Board Member (Fundraising portfolio)

The Netherlands Red Cross Student Desk Zeeland

- · Coordination with regional and national Red Cross offices
- · Organization of first aid stations at local festivals and events

# **■** PORTFOLIO

present • Personal website/blog

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

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

# present 2019

#### Talks & Presentations

danielroelfs.github.io/slides

- · Webpage where I collect all slides and files for talks, workshops, and presentations I've given since the start of my PhD
- · Among others slides for a number of conference presentations (link, link) and talk on the importance of design in science (link, link)

# present 2020

## **Bilkollektivet Trip Cost Calculator**

danielroelfs.shinyapps.io/bilkollektivet

· Interactive web app to quickly calculate and compare the cost of a trip with car-sharing service Bilkollektivet

#### 2021

#### **Advent of Code**

danielroelfs.github.io/advent-of-code

· Annual set of coding and programming challenges/puzzles in the form of an Advent calendar

#### 2020

### Virtual Open Science Escape Room

norment.github.io/ecrm20\_escaperoom

· Developed for scientists to learn about open science in a social setting

#### 2019

#### Introduction To Basic Statistics in R

For internal purposes

- · Gentle introduction to performing statistical analysis and plotting in R
- · Intended for NORMENT employees and other medical researchers



## **SELECTED PUBLICATIONS**

#### 2023

## Shared genetic architecture between mental health and the brain functional connectome in the UK Biobank

BMC Psychiatry

- · First author
- · Co-authored with a.o. Oleksandr Frei, Dennis van der Meer, Ole Andreassen, Lars Westlye, and supervised by Tobias Kaufmann

#### 2022

## Genetic overlap between multivariate measures of human functional brain connectivity and psychiatric disorders

medRxiv

- · First author
- · Co-authored with a.o. Oleksandr Frei, Dennis van der Meer, Ole Andreassen, Lars Westlye, and supervised by Tobias Kaufmann

#### 2021

## The genetic architecture of human cortical folding

Science Advances

· Co-author, first author is Dennis van der Meer

Full list of articles on which I am a (co-)author is available on my ORCID or Google Scholar profile

# Phenotypically independent profiles relevant to mental health are genetically correlated

Translational Psychiatry

- · First author
- · Co-authored with Dag Alnæs, Oleksandr Frei, Dennis van der Meer, Olav Smeland, Ole Andreassen, Lars Westlye, and supervised by Tobias Kaufmann