# 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**

O DNB Group AML

- · 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
- **M** @dthroelfs
- danielroelfs

## SKILLS & LANGUAGES

R	
Python	
MATLAB	
Bash	
LaTeX	
HTML/CSS	
SQL	

Dutch (Native)	
English (C2)	
Norwegian (C1)	
French (B1)	
German (A2)	

Research Intern 2016 **Q** 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 BSc, Pre-medical track 2015 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 **U** 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.

# **Q** AWARDS

**ECIP Oral Finalist** 2021

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

Sparbanken Skåne Master Prize 2019

Sparbanksstiftelsen Färs & Frosta, Lund University

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

# **COMMISSIONS**

**Committee Member** 

2021

2020

2019

2014

NORMENT Early Career Researchers Meeting

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

**Committee Member** 2021

Norwegian Research School in Neuroscience

· Organization of the national conference for neuroscience PhD candidates

General Board Member (Fundraising portfolio) 2015

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 danielroelfs.com 2019

Personal website/blog

- · Includes tutorials on statistics (link, link) and data visualization (link, link)
- · Tutorials contain code written in R and Python, website is generated using Hugo and Rmarkdown hosted through GitHub and Netlify

I only listed instances where I was invited for a position on a committee or an organization

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**

#### 2022

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

medRxiv

- · 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