



Izel Fourie Sørensen

Data Analyst

Personal information

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LinkedIn

[linkedin.com/in/izel-fourie-sorensen](https://www.linkedin.com/in/izel-fourie-sorensen)

Portfolio

<https://izelfourie.github.io/Portfolio/>

Language

 Danish - Fluent
 English - Fluent
 Afrikaans - Native

Profile

Originally a pharmacist, my passion for working with data motivated me to complete a Bachelor's degree in Data Analysis. Combined with previous freelancing data analysis experiences, I've gained in-depth knowledge of machine learning algorithms, data modelling and predictive analysis. My hands-on experience with the R programming language allows me to perform well-constructed analyses, and my analytical background helps me translate complex questions into relevant data models.

My career path illustrates my determination and adaptability. I bring a blend of enthusiasm and dedication to any team I join.

Competencies

Statistical learning/machine learning in R

Analysis reports in Quarto/R Markdown

Data editing and visualisation in R

Presentation of analysis results

Manuscript writing

Knowledge of SQL for retrieving and preparing data

Work experience

Pharmacist • Viborg Regional Hospital

Fixed term

11/2024 - 01/2025

Conducted a literature study on polypharmacy, which was summarised in an internal report. I prepared a poster based on the findings and presented the results at a workshop for hospital staff.

Data analyst internship • Department of Research, Viborg Regional Hospital

08/2024 - 09/2024

During my internship at the Department of Research at Viborg Regional Hospital, I gained valuable insight into the role of a Data Manager.

I performed descriptive analysis and visualisation of hospital business intelligence data and REDCap data using R, contributing to a research project focused on transitions between hospital care and the primary healthcare sector.

This work was documented in an R Markdown report, which I presented during a meeting with the project team.

Internship and Bachelor Project • BetaShared

08/2023 - 01/2024

Applied Bayesian Linear Regression models on simulated data to investigate the effect of various data-sharing scenarios on prediction accuracy.

Quality Assurance Assistant • PharmaService I/S

12/2020 - 08/2022

Associate Scientist • Genomics PLC, Oxford

01/2019 - 07/2020

- Interpreting and reporting genetic analyses results.
- Experience with GitHub and computer cluster systems.
- Editing large genetic datasets using R programming language.

Pharmacist (Part time) • Stoholm Pharmacy

06/2013 - 12/2018

Freelance Data Scientist

06/2013 - 12/2018

- Applying statistical models to genetic data to determine genotype-phenotype associations as well as predicting phenotypes. These analyses were done using the qgg software package in R.
- Results published in peer reviewed journals (see publication section).
- Preparation of a user guide for the qgg software package in R. The documents are available on GitHub (<https://github.com/IzelFourie/qgg-user-guide>).

Internship Data Scientist • BioXpedia

01/2018 - 03/2018

Analysed protein biomarker data.

Contract Researcher • University of Alabama at Birmingham (UAB), USA

03/2013 - 05/2013

Genetic data analysis in the context of personalised medicine. Results published in the journal "Pharmacogenetics and Genomics".

Clinical Pharmacist (maternity cover) • Hospital Pharmacy Viborg

05/2012 - 02/2013

Quality Assurance Pharmacist (maternity cover) • Hospital Pharmacy Viborg

09/2009 - 11/2010

Postdoc • Faculty of Agricultural Sciences, Aarhus University

2005 - 2009

Investigated the neuroprotective effect of phytoestrogens using cell culture techniques.

Research Associate • Department of Chemistry, Virginia Tech, Blacksburg, VA, USA

2000 - 2002

Education

Professional Bachelor in Data Analysis • Dania Academy, Viborg

09/2022 - 01/2024

The education included training in business understanding and data analysis, with projects that used statistical modelling to solve real-world business challenges. It also included training in visualization and in the oral and written presentation of analysis results. The programming language R was used for data modelling.

Cand.pharm. • Copenhagen University, Copenhagen

09/2008 - 08/2009

PhD in Pharmaceutical Chemistry • North-West University, South Africa

2000 - 2004

(Earlier known as "Potchefstroom se Universiteit vir Christelike Hoër Onderwys".)

MSc in Pharmaceutical Chemistry • North-West University, South Africa

1998 - 1999

B.Pharm. (Bachelor in Pharmacy) • North-West University, South Africa

1994 - 1997

Relevant publications

Rohde PD, Fourie Sørensen I, Sørensen P. 2023. Expanded utility of the R package, qgg, with applications within genomic medicine. *Bioinformatics* 39(11):btad656. doi: 10.1093/bioinformatics/btad656

Rohde PD, Sørensen IF, Sørensen P. 2020. qgg: an R package for large-scale quantitative genetic analyses. *Bioinformatics* 36:2614–2615. doi: 10.1093/bioinformatics/btz955

Sørensen IF, Edwards SM, Rohde PD, Sørensen P. 2017. Multiple trait covariance association test identifies gene ontology categories associated with chill coma recovery time in *Drosophila melanogaster*. *Scientific Reports* 7:2413. doi:10.1038/s41598-017-02281-3

Stefan EM, Sørensen IF, Sarup P, Mackay TFC, Sørensen P. 2016. Mapping variants to gene ontology categories improves genomic prediction for quantitative traits in *Drosophila melanogaster*. *Genetics* 203:1871-1883. doi:10.1534/genetics.116.187161

Sørensen IF, Vazquez AI, Irvin MR, Sørensen P, Davis BR, Ford CE, Boerwinkle E, Arnett DK. 2014. Pharmacogenetic effects of "candidate gene complexes" on stroke in the GenHAT study. *Pharmacogenetics and Genomics* 24:556–563. doi: 10.1097/FPC.0000000000000088