



Izel Fourie Sørensen

Data Analyst

Personal information

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LinkedIn

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Competencies

Data editing in R
Data Visualisation in R
Statistical learning/machine learning in R
Presentation of analysis results
Analysis reports in Quarto/R Markdown

Language

 Danish - Fluent
 English - Fluent
 Afrikaans - Native

Profile

My career began in the pharmaceutical sciences, but my growing interest in data motivated me to do a Bachelor's in Data Analysis.

Through my education and freelancing 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 commitment to lifelong learning and adaptability. The various positions I've held have given me the pleasure of interacting with people from diverse backgrounds, which has also improved my communication skills. I bring a blend of enthusiasm and dedication to any team I join.

Work experience

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".)

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

1994 - 1997

Relevant publications

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