

GRANVILLE MATHESON

I am an academic data scientist with a background in neuroscience. I am a generalist, but my speciality is in statistical modelling and inference, as well as presentation and communication. My work has made international news and been cited in policy¹, I have been involved in developing field-wide guidelines to improve replicability² and several R packages that I developed are used internationally. I am passionate about learning new things, and enjoy the challenge of presenting complex results in a compelling way to audiences with different backgrounds.

I am currently looking for a position that allows me to work with complex data to derive useful insights, and to develop tools to streamline the process and make it reproducible.

EDUCATION

- 2018
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2014
- **PhD, Neuroscience**
Stockholm, Sweden 📍 Karolinska Institutet
 - Thesis: Reliability, Replicability and Reproducibility in PET Imaging
 - Working with PET imaging of the dopamine system in psychosis and proneness to developing psychosis, as well as methods development.
 - **MSc, Neuroscience**
Utrecht, The Netherlands 📍 Universiteit Utrecht

SELECTED POSITIONS

- 2022
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2020
- **Postdoctoral Researcher***
Columbia University 📍 Molecular Imaging / Biostatistics
 - * Cancelled / indefinitely postponed on account of COVID-19 pandemic (NYC)
 - Developing Bayesian methods for performing pharmacokinetic modelling using a multilevel framework, with Markov Chain Monte Carlo.
 - **Research Assistant**
Karolinska Institutet 📍 Cervenka Lab, PET Group
 - Responsible for image processing and analysis of MR and PET Imaging data for the Karolinska Behavioural PET Database

SELECTED WRITING

- 2020
- **Nonlinear Modelling using nls, nlme and brms**
granvillematheson.com
 - A demonstration of how to fit nonlinear models using standard gradient descent optimisation, as well as both frequentist and Bayesian multilevel modelling strategies
- 2018
- **My Physiological Response to my PhD Defence'**
granvillematheson.com
 - I recorded my physiological data in the months leading up to my PhD defence, and analysed it here, using data visualisation to tell the story of my sleep changes, and heart rate, both before and during the defence.
 - I also wrote an R package for extracting this data from the Withings API. I have been contacted by others from around the world who are using my software.



CONTACT

✉ matheson@gmail.com
🐦 [granvillemath](https://twitter.com/granvillemath)
📄 github.com/matheson
🌐 granvillematheson.com
in granville-matheson

LANGUAGE SKILLS

R	
MATLAB	
Python	
Bash	

OPEN SOURCE CONTRIBUTIONS

All projects available at github.com/matheson/<name>

kinfitr: R package to perform PET pharmacokinetic modelling
rwithings: R package for querying the Withings activity API
relfeas: R package using reliability to estimate study feasibility

MORE INFO

See full CV for more complete list of positions and publications.