



# Julia Wood

Brisbane, QLD, Australia

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*I am a behavioural neuroscience PhD candidate with data analytics skills (R, Python) and 7 years of R&D industry experience developing novel solutions for customers. I am a self-learner, a critical thinker, and a problem solver, and I am keen to transfer my skills to a data-analytics role, to deliver data-driven solutions.*

## Technical Skills

**Proficient** Novel Product Development

**Competent** R, Python, Data Analysis and Visualisation, Mixed-Effects Models, Generalised Linear Models, PsychoPy

**Novice** MNE-Python, Data Simulation, Shiny, LaTeX

## Data & Programming Projects

Project	Packages	Objective
Power spectral density analysis of electroencephalography (EEG) data in Python	NumPy, pandas, MNE-Python, os, matplotlib	I am investigating changes in the power spectral density of EEG data over time in my PhD studies.
Generalised linear mixed models in R	tidyverse (dplyr, tidyr & ggplot2), lme4, gamlss, broom.mixed	I am using generalised linear mixed models to investigate changes in data from a variety of distributions over time in my PhD studies.
Interactive behavioural tasks in Python	PsychoPy, NumPy, pandas, os	I have coded interactive tasks for behavioural experiments in my PhD studies (associative word learning and sequential finger tapping tasks).
Data simulation study in R	tidyverse (dplyr, tidyr & ggplot2), lme4, gamlss, broom.mixed	I am simulating realistic lognormal experimental data, based on exploratory and descriptive analysis of a public motor-evoked potential (MEP) dataset. I am using these simulated data to compare the ability of various linear models to estimate changes in the within-individual variability of lognormal data over time.
Interactive visualisation of powerlifting data in a shiny (R) web application	shiny, tidyverse (dplyr, tidyr & ggplot2)	I am developing a shiny (R) app to interactively visualise international powerlifting competition results, using open-source data.

## Education

**The University of Queensland, Brisbane**

**2020–Present**

*Doctor of Philosophy (Neuroscience)*

*Title: Sleep, Memory, and Non-invasive Brain Stimulation.*

*Supervisors: Dr Martin Sale, Dr Nicholas Bland, Dr Sonia Brownsett, Dr Cassandra Pattinson*

I am researching how non-invasive brain stimulation influences the quality of our sleep and how we form new memories.

#### Key skills:

- Designing and conducting human research (e.g., designing studies, obtaining ethical clearance, recruiting participants, conducting experiments, analysing and reporting results).
- Teaching myself R and Python to achieve a variety of objectives (e.g., data analysis, data simulation, behavioural tasks).
- Managing sensitive data in compliance with ethical and intellectual property requirements.
- Disseminating technical information in a variety of formats to suit different audiences, including the general public.

#### Outputs:

1. J Wood, N Bland, S Brownsett, M Sale. (2021) *SLEEP Advances*, 2(Abtract Supplement), A74, P163 *Slow wave transcranial electrical stimulation during wake to investigate the consolidation of new learning*. [Poster Presentation] <https://doi.org/10.1093/sleepadvances/zpab014.202>

### UK Society of Cosmetic Science, Brisbane (Remote)

2016–2017

*Diploma of Cosmetic Science*

*Distinction*

### Griffith University, Brisbane

2010–2012

*Bachelor of Forensic Science (Chemistry)*

GPA: 6.92/7

#### Achievements:

- Forensic Science Medal. *I was awarded this medal as the highest-achieving graduate in my bachelor's degree in 2012*
- Graduation Ceremony Student Speaker. *I was the sole student selected to write and present a speech on behalf of my cohort at our graduation ceremony*
- Griffith University Honours College Alumni. *I was invited to join this society as one of the top 2 percent of Griffith undergraduates demonstrating leadership and community engagement*
- Golden Key International Honour Society Member. *I was invited to join as one of the top 15 percent of global undergraduates in 2012*

## Employment

### Research & Development Chemist

Casual **Apr 2020–Current**

*Inline Cosmetic Laboratories, Beenleigh, QLD, Australia*

Full-time **Jul 2015–Apr 2020**

I design and develop novel cosmetic products for a variety of brands. I transitioned from full-time to casual employment when I commenced my PhD in April 2020.

#### Key skills:

- Independently gathering the information I require to develop novel products on-time and within-budget.
- Managing multiple projects with different timelines in a fast-paced and consumer-focussed environment.
- Taking ownership of projects across their entire lifecycle: from conceptualisation to launch, and continual quality monitoring.
- Liaising with key project stakeholders to achieve a common goal, including colleagues, customers, and suppliers.
- Mentoring and training junior staff and conducting annual performance reviews.

#### Achievements:

- MForHer award (2022), Merck Life Sciences. *I received this award celebrating women in science due to my passion for research.*

### Quality Chemist

Full-time **Jan 2013–Jun 2015**

*Alphapharm, Wacol, QLD, Australia*

I performed chemical testing on pharmaceutical product prior to their release for sale.

#### Key skills:

- Conducting experiments to test hypotheses.
- Investigating, documenting, and resolving out-of-specification results.
- Supporting senior staff during regulatory audits (US Federal Drug Administration).

## Referees

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*Available on request.*