

# DAVID JOHN BAKER

[GitHub](#) — [LinkedIn](#)  
[Google Scholar](#)

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## SKILLS

- *Stats*: multi-level models; GLM (e.g. linear/logistic), Bayesian & NHST workflows; latent variable models
- *Inference*: Experimental design; AB testing; causal inference; power analysis; simulation; sequential testing
- *Machine Learning*: ensemble methods; cross-validation; model selection; dimensionality reduction
- *Programming*: Python (pandas, scikit-learn, librosa); R (tidyverse, devtools, Stan, *lme4*); basic web tools
- *Tools*: git, unix, vim, org-mode, Quarto, markdown, L<sup>A</sup>T<sub>E</sub>X, relational databases (SQL, dplyr)
- *Domain Knowledge*: music, cognition, advertising, behavioral modeling, audio branding, applied stats

## EXPERIENCE

**Director/Research Scientist** 2022 – *present*  
Redgranite Group, Ltd Remote

- Have assessed over 80 **Masters of Data Science** apprenticeship projects ranging from finance, banking, meteorology, advertising and marketing from graduates of Russel Group university
- **Leads** development of assessment materials for science and data related standards

**Postdoc** 2022 – February 2024  
Institute of Logic, Language and Computation University of Amsterdam

- Developed **R packages** to clean, model data for Bayesian multi-level modeling in **Stan** from [online server](#)
- Developed computational models to simulate behavioral data for online experiments
- Supervised and **managed** four **masters and doctoral students**
- **Developed** dashboards for QA on data collected from thousands of interactions with online game

**Postdoc** 2021 – 2022  
Department of Psychology Goldsmiths, University of London

- **Designed experiments measuring effectiveness in context of music and video advertising**
- Results from work published in *Journal of Advertising Research*
- Modeled data from thousands of panelists using multi-level, mixed-effects regression models using *lme4*
- Scientific **research used as basis of product** for international market research company [Soundout](#)

**Senior Research Associate** 2020 – 2021  
Department of Computing Goldsmiths, University of London

- Ran software user testing for **multi-university EU Horizons grant on music and web data**

**Lead Instructor, Data Science** 2019 – 2020  
Flatiron School WeWork

- Delivered daily [lectures](#) on **statistics, Python, R, machine learning** to over 70 adult learners
- **Advised** and **assessed** portfolio capstone projects required for completion of program

## EDUCATION

**Doctor of Philosophy** 2019  
Music, Cognitive and Brain Sciences Louisiana State University, USA

**Master of Science** 2014  
Music, Mind and Brain Goldsmiths, University of London, England

**Bachelor of Music** 2012  
Instrumental Performance Baldwin-Wallace Conservatory of Music, USA