

DANIEL HUMPHRIES

PhD Candidate in Mathematics (King's College London) and Neuroscience (University College London).

TOOLS & TECHNOLOGIES

Software & Tools **Language:** Python // JavaScript // Rust // Haskell // SQL // C/C++
Front-end: Svelte // React // Vue // Three JS // WebGL // WebGPU
Back-end: Supabase // Flask // Docker // PostgreSQL // MongoDB
Full-stack: GCP // AWS // Linux // GraphQL // Blender // PyTorch

EDUCATION

King's College London / University College London September 2024 -
PhD Candidate - London Interdisciplinary Doctoral Programme *London, UK*

- Mathematics at King's College London. Computational Neuroscience at University College London.
- Discrete Graphs, Disordered Systems, Hopfield Networks, Computational Modelling of Schizophrenia.

King's College London September 2021 - September 2022
MA Philosophy *London, UK*

- Course of study focused on Kant's First Critique, Representation, Epistemology, and Metametaphysics.
- Masters Dissertation: 'Carving the Mind at its Joints' with Prof Bill Brewer

University College London September 2014 - May 2018
MSci Neuroscience *London, UK*

- Course of study focused on Computational Neuroscience and Dynamical Systems.
- Masters Dissertation: 'Dendritic Spine Stability during Regulative Homeostasis' with Prof Tara Keck
- Bachelors Dissertation: 'Neural Oscillatory Rhythms: Physics & Function' with Dr Lorenzo Fabrizi

RESEARCH

Universität Leipzig / MPI MiS Dec 2023 - March 2024
Research Intern // Web Engineering *Leipzig, Germany*

- Built an interactive website for a community science research project for Dr. Érika Roldán Roa.
- Web Assembly integration of python in svelte web app. website: <https://fence-challenge.vercel.app>.

University College London June 2023 -
Research Assistant // Systems Engineering *London, UK*

- Working with Dr. Daniel Bush in the Human Electrophysiology lab.
- Building a real-time, closed-loop stimulation system for manipulating SWRs in human subjects.

University College London October 2022 - May 2023
Research Assistant // Analysis Pipelines *London, UK*

- Worked with Dr. Alexandra Constantinescu in Professor Neil Burgess's group at the UCL ICN.
- Building 7T fMRI analysis pipelines.

OTHER

Bartlett School of Architecture July 2021 - September 2022
Computational Soul: Guest Seminar *London, UK*

- Invited to run guest seminar on 'computational soul' as part of the Xalon Digital-Communities lecture series.
- Discussed the notions of soul and representation in objects, and what it takes to synthesise 'computational soul'.

Metamodernism as a Service December 2020 - September 2021
AI-Generated Poetry Series *Online, Radio, Gallery.*

- Computer generated 'poetry' made with the early GPT-3 demo API. Exploring notions of self in artificial agents.
- 3AM Bauhaus-FM radio performance with Vivien Jester in Weimar, Germany. Gallery show in Portland, USA.