DANIEL HUMPHRIES

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PROFILE SUMMARY

Fullstack software engineer. Specialised in creative and technical engineering. Ethical and sustainable roles only. Currently working as an RA in the Human Electrophysiology Lab at UCL. Still open to small & creative projects.

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

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

· Course of study focused on Cognitive 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

Kings College London   September 2021 - September 2022
MA Philosophy   *London, UK*

· Course of study focused on Kant, Mind, Meta-Metaphysics, Communication, and Representation.
· Masters Dissertation: 'Carving the Mind at its Joints' with Prof Bill Brewer

RESEARCH

Max Planck Institute for Mathematics in the Sciences   Dec 2023 - Present
Research Intern // Web Engineering   *London, UK*

· Working with Dr Erika Roldan Roa on topics spanning mathematics, psychology, computer science, and ML.
· Fuller details available on project completion.

University College London   October 2022 - Present
Research Assistant // Systems Engineering   *London, UK*

· Working with Dr Daniel Bush and Prof. Neil Burgess on topics in spatial representation and neuroinformatics.
· Building a real-time, closed-loop stimulation system for manipulating Sharp-Wave Ripples in human subjects.

University of Oxford   July 2021 - August 2022
Research Assistant // App Development   *Oxford, UK*

· Creating a mental state tracking tool with Dr. Dan Joyce, a computational and clinical psychiatrist.
· Lightweight and customisable tool to facilitate psychiatric research on the dynamics of mental state over time.

PROFESSIONAL EXPERIENCE

Aufbau   October 2022 - Present
Founder // Web Engineer (Freelance)   *London, UK*

· Creative Web Engineering // WebGPU Specialist // Bespoke Websites, Systems, & Apps - from scratch.
· Tech Stack: Rust // C++ // SvelteKit // Three JS // Web GPU // Python // Javascript

VSProwess   Janurary 2023 - Present
Graphics Engineer (Contract)   *London, UK*

· Bespoke 3d data renderer in Rust/C++. Rendering 1e6 - 1e9 voxels simultaneously and interactively.

· Tech Stack: Rust // C++ // WebGPU // Dawn

Midnight Agency
Senior Fullstack Engineer (Contract / Freelance)

March 2022 - September 2022
London, UK

· Senior Fullstack engineer within a creative technology web agency. Autonomous position among technical leads.
· Tech Stack: Svelte // React // Three JS // Next // Vercel // Docker // CMS // WebGL

Hexis
Senior Fullstack Engineer (Contract)

November 2021 - February 2022
London, UK

· Fullstack developer. Contracted to take start-up from prototype to app store release. Scoped, hired, and led a team (react native developer and junior developer) to deliver a robust and scalable application within 4 months.
· Tech Stack: React Native // Next // GCP // Apollo // GraphQL // Docker // Firebase

Kubrick Group
Fullstack Software Engineer

July 2020 - August 2021
London, UK

· Fullstack software engineer on a greenfield community learning platform. Vue.js and Nuxt app deployed on AWS.
· First Project engineer. Hired and led technical team to take product from concept to MVP with DevOps strategy.
· Tech Stack: Nuxt // Vue // D3 // Python // PostgreSQL // MongoDB // AWS // Docker

Procter & Gamble
Machine Learning Engineer

November 2018 - June 2020
Reading, UK

· Engineer and co-architect on a microservice-based data network & machine learning platform. Bespoke system enabled large multinational to run distributed machine learning models on data assets stored across continents.
· Tech Stack: Python // Vue // Flask // Celery // Docker // PostgreSQL // MongoDB // CUDA // Linux

OTHER

Bartlett School of Architecture
Computational Soul: Guest Seminar

July 2021 - September 2022
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'.