# DANIEL HUMPHRIES

WWW.AUFBAU.IO // DAN@AUFBAU.IO Haggerston  $\diamond$  London  $\diamond$  UK

## PROFILE SUMMARY

Fullstack software engineer. Specialised in creative and technical engineering. Ethical and sustainable roles only.

#### **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

## PROFESSIONAL EXPERIENCE

Aufbau October 2022 - Present

Founder // Web Engineer (Freelance)

London, UK

· Creative Web Engineering // WebGL Specialist // Bespoke Websites, Systems, & Apps - from scratch.

· Tech Stack: SvelteKit // Three JS // Supabase // Rust // WebGL // Web GPU

VSProwess January 2023 - Present

Graphics Engineer (Contract)

London, UK

· Building a 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 - Present 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

Hexis November 2021 - February 2022

Senior Fullstack Engineer (Contract)

 $London,\ UK$ 

· 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

July 2020 - August 2021

Fullstack Software Engineer

Machine Learning Engineer

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

November 2018 - August 2021

Reading, UK

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

## **EDUCATION**

## 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

## Kings College London

MA Philosophy

September 2021 - September 2022 London, UK

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

## RESEARCH

## University College London

October 2022 - Present

Research Assistant

- 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 - Present

Fullstack Engineer // Research Assistant

Oxford, UK

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

## **OTHER**

Raumen Bar August 2022 - Present

London Space and Representation Reading Group

London, UK

- · Articles and research on space, action, and representation across neuroscience, philosophy, and mathematics.
- · Current members from UCL, Gatbsy, SWC & KCL. Always open to new members, reach out !!

## 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

London, UK

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