

Tom Cantellow

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EXPERIENCE

Senior Scientific Officer - R&D Fellow	Aug. 2025 – Present
Department for Environment, Food & Rural Affairs	<i>Newcastle, UK</i>
<ul style="list-style-type: none">Developing <u>RAG</u>-enabled <u>LLM</u> AI chatbots using environmental personas grounded in large survey data.Managed data pipelines and delta tables using Databricks, Azure, and Posit Connect.Wrote Python, R, and SQL code for automated data processing, analysis, and summaries.Presented findings to diverse audiences, managed project timelines and stakeholder expectations.Identified expert stakeholders & convened steering group to shape project strategy, technical priorities & deployment.	
Teacher	Oct. 2020 – May 2025
University of Bristol	<i>Bristol, UK</i>
<ul style="list-style-type: none">Designed and lead lectures for <u>Understanding Global Problems Using Data</u>, teaching quantitative analysis.Lead sessions for political, economic, urban, and health geographies; conducted <u>widening participation</u> workshops.	
Research Associate	Apr. 2023 – Dec. 2024
University of Bristol	<i>Bristol, UK</i>
<ul style="list-style-type: none">Developed <u>Net-Zero Resilience Index</u>, ranking UK areas by resilience to low-carbon economic restructuring.Contributed to reports, academic articles, and built <u>websites</u> for policy engagement; analysed <u>energy efficiency</u> in Bristol's rental housing.	
UKRI Policy Intern	Jun. 2022 – Sep. 2022
UK Home Office, Central Analysis and Insights Team	<i>London, UK</i>
<ul style="list-style-type: none">Led analytical initiatives in data visualisation, spatial analysis, and communication for non-experts.Advised on redesigning evaluative surveys to improve question clarity, respondent experience, and analytical utility.	
Freelance Geospatial Consultant	Apr. 2023 – Present
<ul style="list-style-type: none"><u>IPPR</u> funded update to Net-Zero Resilience Index; produced maps for <u>Demos'</u> 2023 Good Credit Index Report.	

EDUCATION

University of Bristol	Bristol, UK
PhD in Human Geography	<i>Oct. 2020 – Nov. 2024</i>
University of Sheffield	Sheffield, UK
MSc, Distinction, in Applied GIS	<i>Sep. 2017 – Sep. 2018</i>
<i>Awards: Sheffield Postgraduate Scholarship; Ian Masser Prize for best dissertation</i>	
University of Lincoln	Lincoln, UK
BA (Hons), 2:1, in International Relations	<i>Sep. 2012 - May 2016</i>

PROJECTS

Housing Rentierism and Political Subjectivity <u>R</u> , <u>British Election Study</u>	In Progress
<ul style="list-style-type: none">Co-authoring journal article investigating housing <u>asset economy</u>'s impact on class structure and voting behaviour.Analyses homeownership types and area-level house price changes using <u>BES</u> and <u>Land Registry</u> data and spatially-differentiated economic returns to examine earner/churner political cleavages.	
Net Zero Resilience Index <u>R</u> , <u>Leaflet</u> , <u>Github</u> , <u>QGIS</u> , <u>HTML/CSS</u>	Jun. 2024 – Dec. 2024
<ul style="list-style-type: none">Developed economic complexity/relatedness methodology using machine learning to analyse UK employment.Visualised and published ranked resilience index; authored <u>report</u> and journal article (<u>in press</u>).	
PhD Thesis <u>R</u> , <u>QGIS</u> , <u>SQL</u> , <u>LaTeX</u>	Sep. 2020 – Nov. 2024
<ul style="list-style-type: none">Authored a 58,000-word peer-reviewed <u>PhD thesis</u> analysing UK voting behaviour and how the operationalisation of neoliberalism shapes inequalities, political values, and personal financial wellbeing.Analysed large-scale national surveys, big-data on housing markets, local economic indicators,, applying machine learning, mixed-effects models, and other statistical techniques to identify drivers of political attitudes, voting behaviour, and socioeconomic outcomes.	

TECHNICAL SKILLS

Languages & Tools: <u>R</u> , <u>Python</u> , <u>SQL</u> , <u>HTML</u> , <u>CSS</u> , <u>LaTeX</u> ; <u>RStudio</u> , <u>Jupyter</u> , <u>Databricks</u> , <u>Azure</u> , <u>Power BI</u> , <u>Posit Connect</u> , <u>QGIS</u> , <u>ArcGIS Online</u> , <u>ArcGIS</u> , <u>Visual Studio</u> , <u>Excel</u> , <u>Overleaf</u> , <u>MS Office</u> .
Datasets: <u>ACLED</u> , <u>BES</u> , <u>BSA</u> , <u>BRES</u> , <u>CHES</u> , <u>EPCs</u> , <u>IMDs</u> , <u>SAE</u> , <u>Census</u> , <u>UKHLS</u> , <u>UK Land Registry</u> & many others.