

# Tom Cantellow

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## EXPERIENCE

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

## EDUCATION

<b>University of Bristol</b>	Bristol, UK
PhD in Human Geography	<i>Oct. 2020 – Nov. 2024</i>
<b>University of Sheffield</b>	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>	
<b>University of Lincoln</b>	Lincoln, UK
BA (Hons), 2:1, in International Relations	<i>Sep. 2012 - May 2016</i>

## PROJECTS

<b>Housing Rentierism and Political Subjectivity</b>   <u>R</u> , <u>British Election Study</u>	In Progress
<ul style="list-style-type: none"><li>Co-authoring journal article investigating housing <u>asset economy</u>'s impact on class structure and voting behaviour.</li><li>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.</li></ul>	
<b>Net Zero Resilience Index</b>   <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"><li>Developed economic complexity/relatedness methodology using machine learning to analyse UK employment.</li><li>Visualised and published ranked resilience index; authored <u>report</u> and journal article (<u>in press</u>).</li></ul>	
<b>PhD Thesis</b>   <u>R</u> , <u>QGIS</u> , <u>SQL</u> , <u>LaTeX</u>	Sep. 2020 – Nov. 2024
<ul style="list-style-type: none"><li>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.</li><li>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.</li></ul>	

## TECHNICAL SKILLS

<b>Languages &amp; Tools:</b> <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> .
<b>Datasets:</b> <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.