Tom Cantellow

tcantellow@gmail.com | LinkedIn | Website | Portfolio

EDUCATION

University of Bristol	Bristol, UK
PhD in Human Geography	*Oct. 2020 – Nov. 2024*
University of Sheffield	Sheffield, UK
MSc, Distinction, in Applied GIS	*Sep. 2017 – Sep. 2018*

Awards: Sheffield Postgraduate Scholarship; Ian Masser Prize for best dissertation

University of Lincoln	Lincoln, UK
BA (Hons), 2:1, in International Relations	*Sep. 2012 – May 2016*
Ghent University	Ghent, Belgium
Erasmus Programme	*Sep. 2014 – Feb. 2015*

EXPERIENCE

Senior Scientific Officer - R&D Fellow — Aug. 2025 – Present
Department for Environment, Food & Rural Affairs — *Newcastle, UK*
- Developing interactive AI chatbots using RAG & LLMs on Databricks & Azure.

Teacher — Oct. 2020 – May 2025
University of Bristol — *Bristol, UK*
- Designed & led lectures for Understanding Global Problems Using Data, teaching quantitative analysis.
- Conducted Political Geography workshops for widening participation initiatives.
- Led seminars across political, economic, urban & health geographies.

Research Associate — Apr. 2023 – Sep. 2023 & Jun. 2024 – Dec. 2024
University of Bristol — *Bristol, UK*
- Developed Net-Zero Resilience Index, ranking UK areas by resilience to low-carbon economic restructuring.
- Contributed to public reports, peer-reviewed articles & built websites for policy engagement.
- Analysed energy efficiency of Bristol's rental housing & created a webmap.

UKRI Policy Intern — Jun. 2022 – Sep. 2022
UK Home Office, Central Analysis & Insights Team — *London, UK*
- Led analytical initiatives in data visualisation, spatial analysis & communication for non-experts.
- Consulted on evaluative survey redesign aligned with customer needs.

Consultant — Apr. 2023 – Present
- IPPR funded update to Net-Zero Resilience Index for 2024 Parliamentary Constituencies.
- Produced all maps for Demos' 2023 Good Credit Index Report.

PROJECTS

Net Zero Resilience Index | *R, Leaflet, Github, QGIS, HTML/CSS* — Jun. 2024 – Dec. 2024
- Developed an economic complexity methodology utilising machine learning to analyse UK employment.
- Created a ranked resilience index for regional net-zero economic transition.
- Published map via GitHub Pages & authored detailed report & peer-reviewed article (accepted).

PhD Thesis | *R, QGIS, SQL, LaTeX* — Sep. 2020 – Nov. 2024
- Authored 58,000 word peer-reviewed thesis.
- Analysed voting behaviour using big data, large national surveys, local economic data & statistical models.
- Applied machine learning, mixed-effects models & descriptive statistics.
- Effectively balanced teaching, research projects, upskilling, internships & professional commitments.

TECHNICAL SKILLS

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