JUSTIN T. VAN DIJK

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Human geographer. Spatial data scientist. Lecturer. Interested in spatial inequalities and spatial justice, urban transport, big data applications in scarce data environments, and re-purposing administrative and commercial data for research purposes. Extensive experience in the domain of Geographic Information Systems, urban studies, and transport research. Possesses a wide skill set in the field of advanced spatial analysis, experienced with Python programming, R scripting, and PostgreSQL/PostGIS.

Present Appointment

2021 – Present   **Lecturer**, University College London
Department of Geography. Lecturer in Social and Geographic Data Science. Currently contributing to the postgraduate module *Principles of Spatial Analysis* and convening the undergraduate modules *Geocomputation, Research Methods in Human Geography,* and *Geography in the Field II.* Undergraduate Admissions Tutor.

Visiting Appointments

2024 – Present   **Non-Residential Senior Research Fellow**, United Nations University World Institute for Development Economics Research (UNU-WIDER)
Academic lead for the SA-TIED data workstream.

2022 – Present   **Research Fellow**, Stellenbosch University
School for Data Science and Computational Thinking.

Previous Appointments

2020 – 2021   **Associate Lecturer**, University College London
Department of Geography. Associate Lecturer in Quantitative Social Science.

2018 – 2021   **Postdoctoral Research Associate**, University College London
Department of Geography. Research Associate in the Geospatial Analytics and Computing Research Group.

2014 – 2017   **Junior Lecturer**, Stellenbosch University
Department of Logistics. Part-time appointment.

2013   **Junior Lecturer**, Utrecht University
Department of Human Geography and Planning.

2012	**Teaching Assistant**, Stellenbosch University
	Department of Logistics.
2009 – 2012	**Teaching Assistant**, Utrecht University
	Department of Human Geography and Planning.

Education

2014 – 2017	**Doctor of Philosophy**, Stellenbosch University
	Transport Economics. Dissertation title: "Designing Travel Behaviour Change interventions: A spatiotemporal perspective".
2011 – 2013	**Master of Science**, Utrecht University. GPA 4.0. **Cum Laude**.
	Human Geography and Planning. Dissertation title: "Towards spatial justice: The spatial equity effects of a toll road in Cape Town, South Africa".
2007 – 2011	**Bachelor of Science**, Utrecht University. GPA 4.0.
	Human Geography and Planning. Dissertation title: "Contemporary Orientalism? Representations of Islam and Muslims in the Dutch Press: a content analysis of 'De Volkskrant' and 'De Telegraaf', 2001-2010".

Journal Articles

2025	**Van Dijk**, **J. T.** and Kandt, J. Low-Traffic Neighbourhoods and housing market dynamics: Evidence from a Difference-In-Difference Design. *Journal of Transport Geography*. Manuscript in preparation.
	Lee, V. and **Van Dijk**, **J. T.** Connecting or dividing London? The Impact of the Elizabeth Line on job accessibility and spatial equity. *Applied Geography*. Manuscript *in preparation.*
	Mavrogeni, M., Iliev, M., **Van Dijk**, **J. T.**, and Cheshire, C. The London Night-Worker Classification. *Applied Spatial Analysis and Policy.* Manuscript in preparation.
	Gibin, M., **Van Dijk**, **J. T.**, Ye, Z., and Longley, P. A. From names to numbers: Modelling age and gender profiles from consumer data. *Journal of the Royal Statistical Society: Series A (Statistics in Society).* Manuscript under review.
	Mavrogeni, M., **Van Dijk**, **J. T**, and Longley, P. A. Understanding place-to-place interactions using flow patterns derived from in-app and mobile phone location data. *The Geographical Journal.* Manuscript under review.
	Kandt, J, **Van Dijk**, **J. T**, and Todd, J. Under which conditions do major public transport investments induce gentrification? Evidence from a comparative studies of consumer registers in the United Kingdom. *Transportation*

Research Part D: Transport and Environment. 142: 104684. <u>doi: 10.1016/j.trd.2025.104684</u>

2024   **Van Dijk**, **J. T**, Todd, J, and Lan, T. Leveraging digital footprints data for accurate estimation of the residential housing stock in the United Kingdom, 1997-2022. *Annals of GIS*. <u>doi: 10.1080/19475683.2024.2360206</u>

Longley, P. A., Lan, T., and **Van Dijk**, **J. T.** Geography, ethnicity, genealogy and inter-generational social inequality in Great Britain. *Transactions of the Institute of British Geographers* 49(1): e12622. <u>doi: 10.1111/tran.12622</u>

2022   Lan, T., **Van Dijk**, **J. T.**, and Longley, P. A., Family names, city size distributions and residential differentiation in Great Britain, 1881-1901. *Urban Studies* 59(10): 2110-2128. doi: <u>10.1177/00420980211025721</u>

2021   Longley, P. A., **Van Dijk**, **J. T.**, and Lan, T. The geography of inter-generational social mobility in Britain. *Nature Communications* 12: 6050.
doi: <u>10.1038/s41467-021-26185-z</u>

Van Dijk, **J. T.**, Lansley, G., and Longley, P. A., Using linked consumer registers to estimate internal migration in the United Kingdom. *Journal of the Royal Statistical Society: Series A (Statistics in Society)* 184(4): 1452-1474.
doi: <u>10.1111/rssa.12713</u>

2020   **Van Dijk**, **J. T.** and Longley, P. A. Interactive display of surname distributions in historic and contemporary Great Britain. *Journal of Maps* 16(1): 68-76.
doi: <u>10.1080/17445647.2020.1746418</u>

Kandt, J., **Van Dijk**, **J. T.**, and Longley, P. A. Family name origins and inter-generational demographic change in Great Britain. *Annals of the American Association of Geographers*. 110(6): 1726-1742.
doi: <u>10.1080/24694452.2020.1717328</u>

Engin, Z., **Van Dijk**, **J. T.**, Lan, T., Longley, P. A., Treleaven, P., Batty, M., and Penn, A. Data-driven urban management: Mapping the landscape. *Journal of Urban Management* 9(2): 140-150. doi: <u>10.1016/j.jum.2019.12.001</u>

2018   **Van Dijk**, **J. T.** Identifying activity-travel points from GPS-data with multiple moving windows. *Computers, Environment and Urban Systems* 70: 84-101.
doi: <u>10.1016/j.compenv urbsys.2018.02.004</u>

2017   **Van Dijk**, **J. T.** and Krygsman, S. C. Using GPS-based activity spaces and opportunity indicators for travel behaviour analysis. *Journal of Urban Technology* 25(2): 105-124. doi: <u>10.1080/10630732.2017.1400814</u>

Van Dijk, **J. T.** and De Jong, T. Post-processing GPS tracks in reconstructing travelled routes in a GIS-environment: Network subset selection and attribute adjustment. *Annals of GIS* 23(3): 203-217.

doi:

2015   Idahosa, L. O. and **Van Dijk**, **J. T.** Freedom for whom in South Africa? Inequality, unemployment and the elderly. *Development* 58(1): 96-102. doi:

Van Dijk, **J. T.**, Krygsman, S. C., and De Jong, T. Towards spatial justice: The spatial equity effects of a toll road in Cape Town, South Africa. *Journal of Transport and Land use* 8(3): 95-114. doi:

Book Chapters

2021   **Van Dijk**, **J. T.**, Lansley, G., and Longley, P. A., Using linked consumer and administrative data to model demographic changes in London's city fringe. In: Clarke, G., Birkin, M., and Stimson, B. (Eds*.), Applications of Big Data in Geography and Planning. An Essential Companion*, pp. 43-51. Cheltenham: Edward Elgar Publishing.

2013   Wolfensberger M., Dekker, M., **Van Dijk**, **J. T.**, Zubizarreta, J., Hait, C., Mann, C., and Lucas, C. Learning as salon: Honors International Collaboration. In: Mulvaney, M. K. and Klein, K. (Eds.), *Preparing Tomorrow's Global Leaders: Honors International Education*, pp. 75-84. Lincoln: National Collegiate Honors Council. NCHC Monograph Series.

Conference Proceedings

2025   Lee, V., Longley, P. A., and **Van Dijk**, **J. T.** Connecting London: The Impact of the Elizabeth Line on Accessibility and Spatial Equity. *Proceedings of the 33rd Conference of GIS Research UK (GISRUK)*. Bristol: University of Bristol.

Mavrogeni, M., Longley, P. A., and **Van Dijk**, **J. T.** The Geodemographic Classification of Interactivity for Greater London. *Proceedings of the 33rd Conference of GIS Research UK (GISRUK)*. Bristol: University of Bristol.

2024   Mavrogeni, M., Longley, P. A., and **Van Dijk**, **J. T.** Deriving flow patterns from GPS in-app mobile phone data. *Proceedings of the 32nd Conference of GIS Research UK (GISRUK)*. Leeds: University of Leeds. doi:

2023   Longley, P. A., **Van Dijk**, **J. T.**, and Chi, B. Linked Consumer Registers as data infrastructure for timely and inclusive monitoring of community characteristics. *International Journal of Population Data Science* 8(2). doi:

Kimura, S., **Van Dijk**, **J. T**, and Longley, P. A. The use of consumer data to explore geographic and social variations in online gambling. *Proceedings of the 31st Conference of GIS Research UK (GISRUK)*. Glasgow: University of Glasgow.

Mavrogeni, M., Longley, P. A., and **Van Dijk**, **J. T.** The use of in-app data to drive geodemographic classification of activity patterns. *Proceedings of the 31st Conference of GIS Research UK (GISRUK)*. Glasgow: University of Glasgow.

2022 Kimura, S., Longley, P. A., and **Van Dijk**, **J. T.** Exploring the spatial disparities in gambling risk and vulnerability. *Proceedings of the 30th Conference of GIS Research UK (GISRUK)*. Liverpool: University of Liverpool.
doi: 10.5281/zenodo.6407146
> *Winner of the CASA Prize for Best Paper in Spatial Analysis*

Longley, P. A., **Van Dijk**, **J. T.**, and Lan, T. Linkage of historical GB Census data to present day population registers. *International Journal of Population Data Science* 7(3). doi: 10.23889/ijpds.v7i3.2002

2021 **Van Dijk**, **J. T.** and Longley, P. A. Developing a data infrastructure for bespoke demographic analysis. *Proceedings of the 29th Conference of GIS Research UK (GISRUK)*. Cardiff: Cardiff University.
doi: 10.5281/zenodo.4664749

Chen, M., Chi, B., **Van Dijk**, **J. T.**, and Longley, P. A. The use of Linked Consumer Registers to understand social mobility and residential mobility. *Proceedings of the 29th Conference of GIS Research UK (GISRUK)*. Cardiff: Cardiff University. doi: 10.5281/zenodo.4665856

Kuleszo, J., Coulter, R., **Van Dijk**, **J. T.**, and Longley, P. A. Linking consumer datasets to chart residential moves in private rental housing in England and Wales. *Proceedings of the 29th Conference of GIS Research UK (GISRUK)*. Cardiff: Cardiff University. doi: 10.5281/zenodo.4665818

2020 **Van Dijk**, **J. T.** and Longley, P. A. Platial geo-temporal demographics using family names. In: Westerholt, R. and Mocnick, F.-B. (Eds.), *Proceedings of the 2nd International Symposium on Platial Information science (PLATIAL'19)*. Warwick: Warwick University. 23-31. doi: 10.5281/zenodo.3628863

2019 **Van Dijk**, **J. T.**, Lansley, G., Lan, T., and Longley, P. A. Using the spatial analysis of family names to gain insight into demographic change. *Proceedings of the 27th Conference of GIS Research UK (GISRUK)*. Newcastle: Newcastle University.

Lan, T., Lansley, G., **Van Dijk**, **J. T.**, and Longley, P. A. Geocoding historical census records in England and Wales. *Proceedings of the 27th Conference of GIS Research UK (GISRUK)*. Newcastle: Newcastle University.

2016 **Van Dijk**, **J. T.** and Krygsman, S. C. Mobile technologies for data collection in sub-Saharan Africa: An outlook to the future of mobility research. *#CelebrateGeography: Proceedings of the 11th Biennial Conference*

of the Society of South African Geographers (SSAG 2016). Stellenbosch: SunMedia. 180-189.

2015   **Van Dijk**, **J. T.** and Krygsman, S. C. Gathering individual travel data with GPS-enabled smartphones: A proof of concept study. *Proceedings of the 34th Southern African Transport Conference (SATC 2015). Pretoria: Southern Africa Transport Conference*. 448-460.

Professional Publications

2010   **Van Dijk**, **J. T.** and De Jong, T. Medische voorzieningen in kaart. Bereikbaarheid medische voorzieningen in Bushbuckridge, Maruleng en Sekhukhune [Accessibility of Medical services in Bushbuckridge, Maruleng and Sekhukhune]. *Geografie* 19 (5): 18-20.

Authored Books

2017   **Van Dijk**, **J. T.** Designing Travel Behaviour Change Interventions: a spatiotemporal perspective [Ph.D. dissertation]. Stellenbosch: Stellenbosch University. Persistent URL: hdl.handle.net/10019.1/102809

Research and Travel Grants

2024   ESRC Ph.D. Studentship, UBEL DTP. Co-funded by Salad Money. "The real time geography of the UK cost of living crisis for low-income public sector workers."
£ 41,929 / 3 years (co-I, PI: P. A. Longley)

2023   Research Capital Equipment Fund. UCL Faculty of Social and Historical Sciences. "Social Data Science Research Platform." [UCL Internal Funding]
£ 460,177 (co-I, PI: L. Nesheim, co-Is: M. Altaweel, G. Jorayev, G. Conti, W. Cui, J. Granja, S. Hansen, H. Ku. J. Cheshire, M. Disney, M. Gibin, S. Law, P. A. Longley, A. Musah, N. Metternich, T. O'Grady, B. Lauderdale)

ESRC Ph.D. Studentship, UBEL DTP. Co-funded by PDV Limited. "Lifestyles and geodemographic behaviours in inter-generational context."
£ 60,584 / 3 years (PI, co-I: P. A. Longley)

2022   ESRC Ph.D. Studentship, UBEL DTP. Co-funded by Didobi Limited. "Real-time geodemographics for business and service planning."
£ 57,984 / 3 years (co-I, PI: P. A. Longley)

2021   The British Academy Talent Development Award Scheme
£ 9,919.47 / 1 year (PI, co-I: S. Law, A. Musah) Ref: TDA21\210069

ESRC Ph.D. Studentship, UBEL DTP. Co-funded by Gamble Aware. "Geographies of harmful gambling behaviour and their remediation".
£ 57,761 / 3 years (PI, co-I: P. A. Longley)

2020	Frank Carter Travel Fund, University College London **£ 550** (PI)
2016	Postgraduate travel grant, National Research Foundation South Africa **ZAR 24,222** (PI)
2015	NRF-DST innovation scholarship, National Research Foundation and Department of Science and Technology South Africa **ZAR 330,000 / 3 years** (PI) Stellenbosch merit bursary, Stellenbosch University **ZAR 50,000 / 2 years** (PI)
2014	Scholarship award for full-time doctoral studies, Stellenbosch University **ZAR 390,000 / 3 years** (PI)

Created Research Datasets

2023	*Migration Model, 1997 – 2023* The Migration Model is a dataset that ascribes records pertaining to individuals that vacate a property to their most probable destination address, using a UK-wide population data set: the Linked Consumer Registers. Access to this dataset can be secured through the Consumer Data Research Centre (data.cdrc.ac.uk). *Note: I have supervised and managed the creation of the most recent versions built by Dr James Todd.*
2023	*Linked Consumer Registers, 1997 – 2024* The Linked Consumer Registers are a dataset that contain the names and addresses for adults in the UK in annual snapshots from 1997 onwards to 2023. They are compiled from reported outputs from linking public versions of the electoral roll and consumer registers (supplied by value-added resellers). Access to this dataset can be secured through the Consumer Data Research Centre (data.cdrc.ac.uk). *Note: I have supervised and managed the creation of the most recent versions built by Dr James Todd and Dr Bin Chi.*

Professional Development

2024	**Fellow of the Higher Education Academy**, University College London
2023	**UCL Arena for Lecturers on Probation (ALP)**, University College London This course explores the relationships between student education and research and develops skills to teach confidently and effectively.

Teaching Experience

2021 – Present	**Lecturing (Lecturer)**, University College London - GEOG0114: Principles of Spatial Analysis (PG) [2021 – Present] Module contributions page: jtvandijk.github.io/GEOG0114 - GEOG0163: Data, Politics and Society (PG). *Module convenor*. [2021-2024]

Full module page: jtvandijk.github.io/GEOG0163
- GEOG0030: Geocomputation (UG). *Module convenor.* [2021 – Present]
  Full module page: jtvandijk.github.io/GEOG0030
- GEOG0014: Geography in the Field II (UG). *Co-convenor.* [2021 – Present].
  Module contributions page: jtvandijk.github.io/GEOG0014
- GEOG0018: Research Methods in Human Geography (UG) [2024 –
  Present] Module contributions page: jtvandijk.github.io/GEOG0018
- Dissertation supervision of UG students [2021 – Present]:
Anthony Moszuti, Duanduan Shen, Nanami Tsuchiyama, Yixuan Han, Yifan
Shen, Claire Woodyard, Amy Zhang, Paulina Fronckiewicz, Ami Kashima, Xian
Lu Lee, Mia Sher, Gergely Som, Biacheng Zhu, Roisin Fellowes, Vivian Lee,
Claudia Maggs-Velloso, Dion Tan, Bill Xu.
- Dissertation supervision of PG students [2021 – Present]:
Anni Huo, Margaux Leblanc, Devin Hogan, Ruimin Zhang, Mou Jian Lee, Ling
Yi Cheung, Vladimir Tesnière, Xiao Peng, Xiaoyu Chen, Qinnan Zhu, Yasmin
Al-Chimini, Kazuhiro Shibayama, Junxian Wang.

2020 – 2021 **Lecturing (Associate Lecturer)**, University College London
- GEOG0114: Principles of Spatial Analysis (PG) [2020 – 2021]
  Module page: jtvandijk.github.io/GEOG0114_20202021
- GEOG0125: Advanced Topics in Social and Geographic Data Science.
   (PG) [2020-2021]Module contribution page:
   jtvandijk.github.io/GEOG0125_20202021
- POLS0008: Introduction to Quantitative Research Methods (UG) [2020 –
2021] Module contribution page: jtvandijk.github.io/POLS0008_20202021

2019 – Present **High-school Student Supervision,** Nuffield Foundation
Supervision of first-generation prospective university students as part of the
annual Nuffield Future Researchers widening participation work experience
programme. Number of supervisions to date: 5.

2019 **Seminar Series Organisation**, University College London
Co-organiser and speaker in the "Technical Tuesdays" Seminar Series on
methods and techniques for quantitative researchers. Module material:
github.com/jtvandijk/TechnicalTuesdays

2014 – 2017 **Lecturing**, Stellenbosch University
- Spatial Accessibility and Transport Network Analysis (PG)
- Secondary dissertation supervisor of PG students

2013 **Lecturing**, Utrecht University
- Introduction to Human Geography and Planning (UG)
- Research Methods and Techniques (UG)
- Introduction to Geographic Information Systems (UG)
- Advanced Geographic Information Systems (UG, PG)

- Principal dissertation supervisor of UG students

2012	**Teaching Assistant**, Stellenbosch University - Spatial Accessibility and Transport Network Analysis (PG)
2009 - 2012	**Teaching Assistant**, Utrecht University - Introduction to Geographic Information Systems (UG) - Advanced Geographic Information Systems (UG, PG) - Transport Geography (UG) - Honours College Geosciences (UG)

Ph.D. supervision

2024 - Present **Subsidiary Supervisor**, University College London
Luc Wilson on the topic of "The real time geography of the UK cost of living crisis for low-income public sector workers". Expected submission: September 2027.

Subsidiary Supervisor, University College London
Savas Hadjipavlou on the topic of "A microsimulation model of the dynamics of crime, based on the spatial and social character of underlying populations". Expected submission: September 2027.

Subsidiary Supervisor, University College London
Gleb Suvorov on the topic of "Advancing geodemographic analysis by name-based ethnicity estimation using graph neural networks". Expected submission: September 2027.

2023 - Present **Subsidiary Supervisor**, University College London
Michael Xiao on the topic of "Lifestyles and geodemographic behaviours in inter-generational context". Expected submission: September 2026.

2022 - Present **Subsidiary Supervisor**, University College London
Mikaella Mavrogeni on the topic of "Real-time geodemographics for business and service planning". Expected submission: September 2025.

2021 - Present **Subsidiary Supervisor**, University College London
Shunya Kimura on the topic of "Geographies of harmful gambling behaviour and their remediation". Expected submission: March 2025.

Ph.D. examination

2025 **Ph.D. upgrade**, University College London
Michael Xiao on the topic of "Intergenerational Analysis of Urban Geodemographic Structure in Great Britain: The Geodemographic Evolution of the British Urban and Regional System".

2024	**M.Phil. examination**, University College London
	Xi Peng on the topic of "An inquiry into shared dockless bikes as a new urban mobility mode: An exploratory case study of Shanghai and Xi'an, China".
	Ph.D. upgrade, University College London
	Michal Iliev on the topic of "Spatio-temporal equity in urban accessibility: Capturing the temporal dynamics of accessibility in London".
	M.Phil. examination, University College London
	Nikki Tanu on the topic of "Digitising Historical Telephone Directories to Understand Innovation Diffusion and Historical Social Change in Britain, 1880-1951".
2023	**Ph.D. upgrade**, University College London
	Mikaella Mavrogeni on the topic of "Real-time geodemographics for business and service planning".
2022	**Ph.D. upgrade**, University College London
	Shunya Kimura on the topic of "Geographies of harmful gambling behaviour and their remediation".
2021	**Ph.D. upgrade**, University College London
	Louise Sieg on the topic of "New Forms of Data and Geodemographics: Evaluation and regionalisation of big mobile phone datasets".
2020	**Ph.D. upgrade**, University College London
	Jakub Wyszomierski on the topic of "Hybrid geodemographics and creation of the 2021 Output Area Classification".

Invited talks, workshops, and conference presentations

2025	"Spatial Analysis in R". Invited workshop for Young African Statistician Association. Online. *February 19, 2025.*
2024	"Geospatial Analysis Workshop". Invited workshop for the SA-TIED programme. *Statistics South Africa, Pretoria, South Africa, September 16-17, 2024.* Workshop page: jtvandijk.github.io/SA-TIED
	"From Data to Impact: Securely leveraging geo-referenced administrative data". Invited guest talk South African Revenue Services. *South African Revenue Services, Pretoria, South Africa, September 11, 2024.*
	"GPS, GIS and reducing the carbon footprint". Invited guest lecture Utrecht University Summer School on "Sense making of GPS data in a GIS environment". *Utrecht University, the Netherlands, July 9, 2024.*

"Micro-demographic modelling of age and community structure". 12th International Conference on Population Geographies. *Belfast, United Kingdom, July 2, 2024.* Presented by Dr Maurizio Gibin.

2023   "Linked Consumer Registers as data infrastructure for timely and inclusive monitoring of community characteristics". ADR UK Conference. *Birmingham, United Kingdom, November 15, 2023.* Presented by Dr Bin Chi.

"Modelling residential mobility using electoral registers". Invited Research Seminar. Geographical research on spatial big data. *Tokyo, Japan, October 29, 2023.*

"Trip diary reconstruction using GPS traces". Invited guest lecture Utrecht University Summer School on "Sense making of GPS data in a GIS environment". *Utrecht University, the Netherlands, July 4, 2023.*

"'DigitalFootprints Data". Invited Research Seminar. Graduate School of Economic and Management Sciences and School of Data Science and Computational Thinking, Stellenbosch University. *Stellenbosch, South Africa, April 13, 2023.*

2022   "Linkage of historical GB Census data to present day population registers". International Population Data Linkage Network Conference. *Edinburgh, United Kingdom, September 8, 2022.*

"A more granular approach of the social outcome inequalities among different ethnic groups in Great Britain". The British Society for Population Studies Annual Conference. *Winchester, United Kingdom, September 6, 2022.* Presented by Dr Tian Lan.

"Harder, better, faster, stronger. Exploring GPU-based analysis for social and geographic applications". Talent Development Award Induction Day. *The British Academy, United Kingdom, May 11, 2022.*

"What's in a name? Visualising surname geographies in a GIS environment". International Spring School on Visualization (ISSonVis). *Palacký University Olomouc, Czech Republic, April 7, 2022.*

"Harder, better, faster, stronger. Exploring GPU-based analysis for social and geographic applications". Human Geography Seminar Series Department of Geography. *University College London, United Kingdom, March 15, 2022.*

2021   "New data on equality, exclusion and social change in London and the UK". Levelling Up and London, London Research and Policy Partnership *London, United Kingdom, September 17, 2021.*

"Developing a data infrastructure for bespoke demographic analysis". 29th Conference of GIS Research UK. *Cardiff, United Kingdom, September 14 – September 16, 2021.*

2020   "Applied Geoinformatics: Insights into human mobility patterns". Invited guest lecture Department of Physical Planning [online]. *School of Architecture and Planning New Delhi, India, October 29, 2020.*

2019   "Platial geo-temporal demographics using family names". 2nd International Symposium on Platial Information science. *Coventry, United Kingdom, September 5 – September 6, 2019.*

"Using the spatial analysis of family names to gain insight into demographic change". 27th Conference of GIS Research UK. *Newcastle, United Kingdom, April 23 – April 26, 2019.*

2017   "Using GPS-enabled smartphones for Voluntary Travel Behaviour Change interventions". Invited guest lecture Utrecht University Summer School on "GPS data analysis". *Utrecht University, the Netherlands, July 12, 2017.*

2016   "Mobile data collection techniques in sub-Saharan Africa: An outlook to the future of transport research". 11th Biennial Conference of the Society of South African Geographers. *Stellenbosch, South Africa, September 25 – September 25, 2016.*

"Designing a Voluntary Travel Behaviour Change Intervention: Smartphones and Space-Time Accessibility Analysis". Mobile Tartu 2016. *Tartu, Estonia, June 29 – July 1, 2016.*

"GPS data analysis". Invited guest lecture Utrecht University in the module "Introduction to GIS". *Utrecht University, the Netherlands, February 18, 2016.*

2015   "GPS data analysis". Invited guest lecture Utrecht University in the module "Introduction to GIS". *Utrecht University, the Netherlands, November 25, 2015.*

"Gathering individual travel data with GPS-enabled smartphones: A proof-of-concept study". 34th Southern African Transport Conference. *Pretoria, South Africa, 6 July – July 9, 2015.*

2014   "Twenty years of Freedom: The role of the Old Persons Grant in addressing unemployment and inequality in a young democracy". 12th Development Dialogue "Rethinking Democracy". *The Hague, the Netherlands, October 16 – October 17, 2014.*

"Towards spatial justice: The spatial Equity Effects of a Toll Road in Cape Town, South Africa". World Symposium on Transport and Land Use. *Delft, the Netherlands, June 24 – June 27, 2014.*

Professional Societies

2021 – Present   *Fellow of the Royal Geographical Society (with Institute of British Geographers)*
Ordinary committee member of the RGS-IBG GIScience Research Group.

Community Service and Engagement

2022 - Present   *Department Management Team*
Member of the Department Management Team (UCL Geography). Member of the Computing Committee and the EDI Committees.

2022 – Present   *Undergraduate Admissions Tutor*
Undergraduate Admissions Tutor for the Undergraduate programmes in UCL geography. Member of the Faculty of Social and Historical Sciences Recruitment and Advisory Group.

2022   *Session organiser RGS-IBG Annual International Conference*
Organiser for two sessions in the RGS-IBG International Conference on "Dealing with uncertainty: Quality and Representation in the context of Big Data". *Newcastle, United Kingdom, August 29 – September 2, 2022.*

2021 – 2024   *Committee member RGS-IBG GIScience Research Group*
Organisation and promotion of the events of the RGS-IBG GIScience Research Group, including a webinar series and RGS Annual Conference session.

2021   *Data for Policy conference*
Session chair. "Informing policy for region and cities: data approaches for timely and granular evidence" *London, United Kingdom, September 16, 2021*.

2021   *Consumer Data Insights for Housing Policy Workshop*
Presentation and participation in stakeholder workshop to showcase work on housing and residential mobility. *London, United Kingdom, June 26, 2021.*

2020 – Present   *Under One Sky*
Volunteering. Provision of food and assistance to the homeless community in London.

2014 – 2015   *Social Sciences for Development conference*
Member of the local organising committee at Stellenbosch University for the 2015 Social Sciences for Development conference.

Web Development

2019 – 2021   *Gamble Aware*
Data analysis, web mapping, and visualisation of the geographical distribution of supply and demand for treatment and support for problematic gamblers.

2018 – 2023   *GBNames*
GBNames explores the spread of family names across Great Britain, using historic censuses and recent consumer registers, and links surnames to consumer data statistics. Website available through:
apps.cdrc.ac.uk/gbnames/

External Engagement

2024 – Present   *UNU-WIDER SA-TIED Data Workstream*
The SA-TIED programme is primarily based around evidence-based policy making, through a joint work programme undertaken by national and international academics as well as policy leads based within the National Treasury (NT) of South Africa. The data workstream compliments this research by making administrative data available for research, primarily through the tax data housed in the National Treasury - Secure Data Facility (NT-SDF), via collaboration with the South African Revenue Services (SARS). My role as the UNU-WIDER Non-Resident Senior Research Fellow for the data workstream is to provide the academic leadership and strategic direction to this workstream.

2023 – Present   *Greater London Authority*
Contributions to a project on quantifying the night-time economy in London and create the London Nightworkers geo-demographic classification. Many dimensions of night-time activity, night-work, and night-time communities – the experiences of often precarious night-workers – remain elusive, and require a new evidence base gathered using ambitious approaches to data collection (both quantitative and qualitative) to drive equitable policy.

2021   *World Bank*
Generation of travel time indicators and market access indicators for small administrative units in Ethiopia. This project is part of a wider study conducted by the World Bank that aims to identify and tackle deeply rooted binding constraints that could hamper the gains of economic growth being spread evenly across regions and between rural and urban areas. Final World Bank report available through: bit.ly/3Aj57U0

2020   *UCL, Bloomsbury and East London Doctoral Training Partnership*
Scoping study, consisting of both desk research and in-person interviews, to identify potential factors and themes that underpin successful partnerships and collaborations between academia and industry.

2019   *Greater London Authority*
Preparation of selected data products on ethnicity, population churn, migration, and social mobility for the Greater London Authority.

2016 – 2017	*Harambee Youth Employment Accelerator*
	Data analysis using well-known statistical techniques as well as more advanced machine learning classifiers for Harambee Youth Employment Accelerator to better understand, and possibly predict, successful job placements.
2009	*AfricaScope*
	Contributions to a study on the accessibility of government services in the Integrated Sustainable Rural Development (ISRD) Nodes in South Africa.

Journal and Grant Review

2024	UK Research and Innovation
	Habitat International
2023	Social Science History
	PLOS ONE
2022	Transportation Research Board
	Transportation Research Record
2021	Transactions in GIS
	Environment and Planning B: Urban Analytics and City Science
2020	Computers, Environment, and Urban Systems
	Journal of Transport Geography
	Transactions in GIS
2019	Transactions in GIS
	Journal of Transport Geography
	Journal of Traffic and Transportation Engineering
2018	Journal of Transport Geography
	Computers, Environment, and Urban Systems
2016	Area Development and Policy
2015	Journal of Transport and Land Use

Media Coverage of Research Projects

2021	The Economist. Britain's inequalities are spelt out in its surnames. Nov 20, 2021; Vol. 442 (9272)
	UCL News. Social mobility is influenced by where ancestors lived [Online]. https://www.ucl.ac.uk/news/2021/oct/social-mobility-influenced-where-ancestors-lived

Core Technical Skills

Geographic Information Systems	R, Python, Q-GIS, ESRI suite
Data processing	R, Python, Unix shell, GNU Parallel
Data analysis	R, Python
Data visualisation	ggplot2, tmap
Project management	Git, GitHub

Web mapping	Leaflet.js
Web development	HTML, CSS, JavaScript, Django
Database management	PostgreSQL, PostGIS
Typesetting	LaTeX, markdown, rmarkdown, bookdown, quarto

Language Proficiency

Dutch	Native proficiency
English	Full professional proficiency
isiXhosa	Basic conversational proficiency

References

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