

# Samuel Hugh Langton

Curriculum Vitae

## CONTACT

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## EDUCATION

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2016-2020     Doctoral candidate in Criminology, Manchester Metropolitan Crime and Well-Being Big Data Centre, Manchester Metropolitan University, UK.

Fully funded by a Vice-Chancellor's doctoral scholarship. Thesis title: 'Offender residential concentrations: a longitudinal study in Birmingham, England'. Defence passed with minor corrections on 18 February 2020. Examiners: Prof. Stephen Morris and Prof. Susan McVie.

Extensive literature reviews and quantitative analyses used to examine the geographic patterning of known offender residences along three dimensions: spatial scale, longitudinal stability and explanation. Data handling and analysis conducted on (spatial) administrative data available through Open Government Licence and 10-years of geocoded police records. Work undertaken in collaboration with geospatial analysts and evidence-based practice personnel from West Midlands Police Force.

2014-2016     MSc Sociology and Social Research, Utrecht University, Utrecht, the Netherlands.

Module topics included foundations of social theory, social networks, game theory, generalised linear models, multilevel modelling and structural equation modelling. Thesis entitled 'Residential burglary target selection: an analysis at the property-level' supervised by Dr. Wouter Steenbeek and Dr. Jeroen Weesie awarded grade 8.5 (UK: distinction).

2009-2012     BSc Social Policy with Government, London School of Economics and Political Science, London, UK.

## RESEARCH EMPLOYMENT

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2020-now     Research Fellow in Crime Science (full-time), School of Law, University of Leeds, Leeds, UK.

Economic and Social Research Council project *Reducing the Crime Harms of the COVID-19 Pandemic* in collaboration with University College London. Website: <https://covid19-crime.com/>.

2019-2020     Postdoctoral researcher (full-time), Manchester Metropolitan Crime and Well-Being Big Data Centre, Manchester, UK.

Leading the development of data visualisations for a project commissioned as part of the Violence Reduction Unit in Greater Manchester. This involves extensive longitudinal descriptive statistics, graphics and maps about crimes involving the use or threat of a knife, for geocoded crime locations and victim/offender residences.

Tasks also involve supporting colleagues in projects deploying data science techniques to help estimate and tackle (crime and non-crime) police demand.

2016-2018     Research assistant (part-time), Manchester Metropolitan Crime and Well-Being Big Data Centre, Manchester, UK.

In collaboration with fellow researchers, conducted literature reviews for Greater Manchester Police (GMP) to highlight the challenges of demand originating from unconventional sources (e.g. latent

demand, mental ill-health). Outputs included drafting technical reports which constituted a major component of presentations and final reports to GMP.

2016 Research assistant intern (part-time), Netherlands Institute for the Study of Crime and Law Enforcement, Amsterdam, the Netherlands.

Conducted extensive data processing of centralised building registrar and police recorded crime data to collate data for master's thesis. Carried out systematic literature review on academic studies examining the spatial relationship between alcohol outlets and crime using advanced search terms on Web of Science. Output included a comprehensive tabular summary of circa 70 papers.

2015 Research assistant (part-time), Sustainable Workforce project, Utrecht University, Utrecht, the Netherlands.

Provided administrative support for a wider research team, communicating and organising meetings with British participants of the Sustainable Workforce survey.

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#### VISITING POSITIONS

2020-now Visiting Research Fellow for the Policy Evaluation and Research Unit (PERU) at Manchester Metropolitan University, Manchester, UK.

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#### PEER-REVIEWED JOURNAL ARTICLES (PUBLISHED)

Adepeju, M., Langton, S.H. & Bannister, J. (2021). Anchored k-medoids: a novel adaptation of k-medoids further refined to measure long-term instability in the exposure to crime. *Journal of Computational Social Science*.

Adepeju, M., Langton, S.H. & Bannister, J. (2020). Akmedoids R package for generating directionally-homogenous clusters of longitudinal data sets. *Journal of Open Source Software*.

Langton, S.H., & Solymosi, R. (2019). Cartograms, hexograms and regular grids: Minimising misrepresentation in spatial data visualisations. *Environment and Planning B: Urban Analytics and City Science*.

Langton, S.H., & Steenbeek, W. (2017). Residential burglary target selection: An analysis at the property-level using Google Street View. *Applied Geography*, 86, 292-299.

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#### PEER-REVIEWED JOURNAL ARTICLES (ACCEPTED OR UNDER REVIEW)

Langton, S.H., Dixon, A., & Farrell, G. (*accepted with minor revisions*). Six Months In: Pandemic Crime Trends in England and Wales. *Crime Science*.

Buil-Gil, D., Moretti, A., & Langton, S.H. (*accepted with minor revisions*). The integrity of crime statistics: assessing the impact of police data bias on crime mapping. *Journal of Experimental Criminology*.

Langton, S.H., Steenbeek, W., & Adepeju, M. (*under review*). An examination of variability in offender residences across different spatial scales: a study in Birmingham. Pre-print retrievable from <https://osf.io/preprints/socarxiv/xe7fq/>.

Langton, S.H., Bannister, J., Ellison, M., Haleem, S., & Krzemieniewska-Nandwani, K. (*under review*). Policing and mental ill-health: Using big data to assess the scale and severity of, and the frontline resources committed to, mental ill-health related calls-for-service. Pre-print retrievable from <https://osf.io/preprints/socarxiv/r9h2a/>.

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#### BOOK CHAPTERS (IN PRESS)

Buil-Gil, D., Langton, S.H. (*in press*). GIS and Geovisual Analysis. In P. Atkinson, S. Delamont, R. Williams, A. Cernat & J. Sakshaug (Eds.), *Research Methods Foundations: An Encyclopaedia*. SAGE.

Langton, S.H., & Solymosi, R. (*in press*). Using Open Street Map for place-based crime analysis. In E. Groff, & C. Haberman (Eds.), *The Study of Crime and Place: A Methods Handbook*. Temple University Press.

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**TEXTBOOKS (IN PRESS)**

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Wooditch, A., Johnson, N., Solymosi, R., Medina, J., & Langton, S.H. (*in press*). *A Beginner's Guide to Statistics for Criminal Justice and Criminology using R*. Springer.

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**OTHER ARTICLES (PUBLISHED)**

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Farrell, G., Langton, S.H., & Dixon, A. (2020). Six months in: Pandemic crime trends in England and Wales to August 2020. *Policing Insight website* retrievable from <https://policinginsight.com/features/analysis/six-months-in-pandemic-crime-trends-in-england-and-wales-to-august-2020/>.

Langton, S.H. (2020). Crime and Anti-social behaviour in Greater London. *Statistical Bulletin on Crime and COVID-19 Issue 3*. Leeds: University of Leeds.

Langton, S.H. (2020). Lockdown crime trends: why antisocial behaviour is up. *The Conversation website* retrievable from <https://theconversation.com/lockdown-crime-trends-why-antisocial-behaviour-is-up-140479>.

Langton, S.H. (2019). Even the most beautiful maps can be misleading. *The Conversation website* retrievable from <https://theconversation.com/even-the-most-beautiful-maps-can-be-misleading-126474>.

Langton, S.H. (2017). When crime drops, the demands on the police don't necessarily fall. *The Conversation website* retrievable from <https://theconversation.com/when-crime-drops-the-demands-on-the-police-dont-necessarily-fall-79288>.

Langton, S.H. & Bannister, J. (2017). Space, Place and Crime in an Era of Big Data, *The Geographer, spring issue of the newsletter of the Royal Scottish Geographical Society*.

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**INVITED PRESENTATIONS**

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| 2019 | 'The geography of offender housing in Birmingham'. Presented to the geospatial analyst team, offender management personnel and evidence-based policing team of West Midlands Police, Birmingham, May 29.  |
| 2019 | 'Visualising geographic information: examining methods of improving the thematic map'. Presented at the Quantitative Spatial Science Group monthly seminar, School of Geographical Sciences, University of Bristol, February 18.  |
| 2019 | 'Longitudinal stability in offender residence concentrations: visualising and explaining small area trajectories in Birmingham, England'. Presented at the Centre for Criminology and Criminal Justice quarterly work in progress seminar, University of Manchester, February 20. |
| 2019 | 'Visualising geographic information: examining methods of improving the thematic map'. Presented at Open Data Manchester, Manchester, January 29.   |

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**PRESENTATIONS**

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| 2020 | Six Months In: Pandemic Crime Trends in England and Wales. Presented at the 'COVID-19 and crime research webinar' hosted by the University of Leeds and University College London, 9 December.                           |
| 2019 | 'Delinquency areas still matter: demonstrating the theoretical and empirical distinctions between offenders and crimes'. Presented at the Annual Meeting of the European Society of Criminology, Ghent, September 18-21. |
| 2019 | 'Visualising geographic information: improving interpretation through cartograms, hexograms and regular grids'. Presented with conference proceedings at GISRUK, Newcastle, April 23-26.                                 |
| 2018 | 'Offender residential concentrations: a longitudinal study in the United Kingdom'. Presented at the Annual Meeting of the European Society of Criminology, Sarajevo, August 29-September 1.                              |
| 2018 | 'Rapid change in ethnic composition – part of a wider Brexit picture?' Presented with conference proceedings at GISRUK, Leicester, April 17-20   |

- 2017 'Neighbourhood trajectories: a longitudinal study of offender residence concentrations'. Presented at the Annual Meeting of the European Society of Criminology, Cardiff, September 13-16.
- 2016 'Residential burglary target selection: an analysis at the property-level using Google Street View'. Postgraduate session at the Masterclass Spatial Behaviour and Crime, Royal Netherlands Academy of Sciences, Amsterdam, May 18.

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#### TEACHING EXPERIENCE

- 2021 Instructor, 'Data visualisation in R using crime data', online workshops for the UK Data Service, February 11-12.
- 2020 Instructor, 'A gentle introduction to QGIS', Open Data Manchester webinar series, Manchester, UK, May 12 (2-hour workshop).
- 2020 Instructor, 'Introduction to QGIS', Cathie Marsh Institute for Social Research, University of Manchester, UK, February 26 (1-day intensive).
- 2020 Instructor, 'Data visualisation in R using crime data', UK Data Service and Cathie Marsh Institute for Social Research, University of Manchester, UK, February 5 (1-day intensive).
- 2019 Lead organiser and instructor of a workshop introducing R for police forces, West Midlands Police, Birmingham, UK, September 26 (1-day intensive).
- 2019 Lead organiser and instructor of a workshop introducing R for criminologists at the Annual Meeting of the European Society of Criminology, Ghent, Belgium, September 18-21 (1-day intensive).
- 2018-2020 Instructor, 'Getting started in R: an introduction to data analysis and visualisation', Methods at Manchester Summer School, University of Manchester, UK, July (1-week intensive, each year).
- 2019 Instructor, 'Introduction to Cluster Analysis using R', Cathie Marsh Institute for Social Research, University of Manchester, UK (1-day intensive).
- 2018 Teaching assistant, 'Modelling Criminological Data', School of Law, University of Manchester, UK (cover).
- 2018 Qualified as an instructor for Data and Software Carpentry.
- 2018 Lead organiser and instructor, 'Introduction to R', Faculty of Arts and Humanities, Researcher Development Programme for Postgraduates and Staff, Manchester Metropolitan University, UK (one-off workshop).
- 2015-2016 Teaching assistant and examination marker, 'Models for the analysis of social interaction', Department of Sociology, Utrecht University, the Netherlands (part-time).

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#### ORGANISATION

- 2018 Co-organiser of six pre-arranged panels consisting of 22 individual presentations for the Space Place and Crime working group at the Annual Meeting of the European Society of Criminology conference, Sarajevo, August 29-September 1.
- 2018 Co-organiser of the first North West Universities R Day, consisting of tutorial workshops, keynote speakers and presentations from a diverse array of disciplines, Manchester, October 31.

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#### REVIEWER

Journal article reviewer for *Crime Science*, *Applied Geography*, *Environment and Planning B: Urban Analytics and City Science* and *Journal of Housing and the Built Environment*.

#### **OTHER EMPLOYMENT**

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2017-2019      Freelance data analyst and author for *Policing Insight* website.

2012-2014      Insolvency administrator and trainee accountant, Accura Accountants, London, UK.

#### **SOFTWARE**

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Adepeju, M., Langton, S. H. & Bannister, J. (2019) *akmedoids: Anchored Kmedoids for Longitudinal Data Clustering*.  
Retrieval from <https://cran.r-project.org/web/packages/akmedoids/index.html>.

#### **SOFTWARE EXPERIENCE**

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R, QGIS, GeoDa, Mplus, Stata.