

Nathanael Sheehan

PhD Student

Curriculum Vitae

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About

My research explores data in the post-genomic age, focusing on the politics and philosophy of 'open science': a new approach to the scientific process based on cooperative work and new ways of diffusing knowledge by using digital technologies and new collaborative tools. Combining approaches from philosophy of science, computer science and science and technology studies, my doctoral thesis is grounded in the case of genomic surveillance, examining the historical and cultural elements at play in the dissemination and preservation of data in a crisis. Central to my research is the publication of free and open-source software. I am interested in the application of machine learning/deep learning tools and techniques in the context of pattern recognition in large scale data analytics, while also focusing on creative and artistic plotting of scientific data.

Education

2014-2018	BSc Computer Science (1st) Manchester, UK	Manchester Metropolitan University
2019-2020	Master of Smart Cities and Urban Analytics (Distinction) London, UK	University College London
2021-2025	PhD Environmental Intelligence Exeter, UK	Exeter University

Work Experience

2017-2019	Software Engineer London, UK	RetailMeNot
2020	Research Assistant Remote	University College London
2021	Geographical Information System Engineer Remote	Bristol City Council
2021	Research Engineer Remote	Oxford University
2021-2022	Research Fellow Remote	Leeds University

Research Software

- Joseph Talbot, M. L.-S., Nathanael Sheehan. (2021). ActDev.
- Robin Lovelace, L. H., & Sheehan, N. (2021). Pct: Propensity to cycle tool.
- Sheehan, N. (2022). Thames21 socio-ecological data.
- Sheehan, N. (2022). Dimaqdata: Data integration model for air quality data.
- Sheehan, N., Lovelace, R., Nederlof, T., & Carlino, D. (2022). Abstr: R interface to the a/b street transport system simulation software.
- Sheehan, N (2022). IndoorRSSI: Indoor Received Signal Strength Indicator
- Sheehan, N (2023). eaCatcher: The eaCatcher R package provides an interface to data from the environment.data.gov.uk catchment planner.
- Sheehan, N (2023). Gigwork Stories: Doing Gig Work, a research project which studies the management, solidarity and resistance of platform food couriers in Manchester (UK), Cluj-Napoca (Romania) and Lyon (France).
- Sheehan, N (2023). C2A: CTA contains the code and data used to produce the results presented in the paper "From collection to analysis: A comparison of GISAID and the Covid-19 Data Portal.

Publications

- Talbot, J., Lucas-Smith, M., Speakman, A., Streb, M., Nuttall, S., Carlino, D., Johansson, P., Sheehan, N., Groot, N., & Lovelace, R. (2022). Active Travel Oriented Development: Assessing the suitability of sites for new homes. European Journal of Transport and Infrastructure Research, 22(4), 51–72. <https://doi.org/10.18757/ejtr.2022.22.4.6015>

- From Collection to Analysis: A Comparison of GISAID and the Covid-19 Data Portal; Nathanael Sheehan, Sabina Leonelli, Federico Botta bioRxiv 2023.05.13.540634; doi: <https://doi.org/10.1101/2023.05.13.540634>

Presentations

2020	Digital Ecologies, Online Performing digital water publics: a computational approach
2021	Decarbon8, Online Working with origin-destination and activity data to model decarbonisation
2021	Intelligent Machines, Emotions, and Our Planet, Online Linking Sentiment with River Health in the Thames Basin
2021	Modelling World, Online The ActDev Project
2022	Data Crunch, Online Open Data in the Private Industry
2022	Philosophy of Open Science open meeting, Online Responsible Repositories
2022	PhillinBioMed conference, Pittsburgh Analysis of COVID-19 sequencing platforms
2023	Research Data Alliance, Gothenburg Analysis of COVID-19 sequencing platforms
2023	Institute for Data Science and AI, Exeter Analysis of COVID-19 sequencing platforms
2023	PHIL_OS Exploratory Conference, Exeter Open Data and Software in Science
2023	International Society for the History, Philosophy and Social Studies of biology, Toronto Covid-19 Genomic Data: Diverse Enough?