# Lenka Hasova

Curriculum vitae

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# EDUCATION

- 2019 2024 Advanced Guantitative Methods (PhD) University of Bristol, UK
- 2017 2018 Geographic Data Science (MSc) University of Liverpool, UK
- 2013 2017 **GIS, Remote Sensing and Cartography, with an Erasmus year (BSc)** University of Ostrava, CZ, University of Salford, UK

# **RELATED EXPERIENCE**

APRIL 2023 - PRESENT

University of Bristol
Postdoctoral Researcher

I have joined a team working on the UKRI Future Leaders Fellowship project "Mapping ambient vulnerabilities" (MAV) first part-time and later on a full-time basis. Led by Dr.Caitlin Robinson this project evidences the accumulation of, and interactions among, ambient vulnerabilities of airenergy-climate nexus in the urban environment, as well as the uneven impacts on people and places. My main role in this project is to research air and energy vulnerabilities on a national scale, together with the provision of data science support across the project.

## SEPTEMBER 2023 - AUGUST 2024

University of Bristol Lecturer

During the 2023/2024 academic year, I took on a short teaching contract to deliver the MSc module "Urban Analytics and City Science." In this role, I was responsible for adjusting and updating the module materials, delivering seven lectures and seven practicals, marking, and providing support to the students.

#### AUGUST 2022 - SEPTEMBER 2022

University of Bristol & Bristol One City Research Assistant

The Bristol One City Living Rent Commission project, led by Dr Levi Wolf and Dr Alex Marsh, aimed to

analyse the changes in the Bristol rental market and inform Bristol policymakers on the financial burdens of rent changes on the Bristol population. As a research assistant, I supported the analysis by performing some analysis and delivering interactive maps and charts. This involved cleaning and managing the *Zoopla Property Price Data* provided by the Urban Big Data Centre (UBDC), University of Glasgow.

### APRIL 2022 - SEPTEMBER 2022

Zsah Ltd Managed Technology Services Geospatial Data Scientist

My most recent experience was a placement with Zsah Ltd, a company with an emerging geospatial team. The company has hired me to apply the knowledge gained during Ph.D. to their projects. Using my experience in spatial interaction modelling, I applied accessibility modelling for Royal Mail Delivery offices, custom network building with OSM (example), scalable routing algorithms and naive rush-hour time estimation.

## SEPTEMBER 2019 - AUGUST 2023

University of Bristol

# Teaching assistant

During my Ph.D. I provided marking and teaching support for several undergraduate and masters modules; Introduction to Quantitative Geography, Spatial Modelling 1 & 2, An Introduction to GIS and Remote Sensing for Environmental Policy and Management, Practical Statistics for Use in Research and Policy and Geographic Data Science.

### APRIL 2019 - SEPTEMBER 2019

## ARUP GIS Analyst & Developer

As part of the Digital Insight team, I worked on several highways projects, providing GIS data management support and data analysis. My major contribution as a data scientist was to develop a new model to predict sewer pollution incidents, which enabled the client to identify locations of high risk with more confidence.

# AWARDS, GRANTS

#### **ABERDEEN FINANCIAL FAIRNESS TRUST** (SEPTEM-BER 2025)

My team (PI: J. Evans, co-investigators: C. Robinson and L. Hasova) was been awarded £73,544 in funding for a project investigating and "Mapping The Geographies Of Energy Consumption In Britain". This project is currently in progress and involves data collection and analysis, as well as specialist interviews.

## JOHN ODLAND AWARD (FEBRUARY 2022)

As part of the Spatial Analysis and Modeling (SAM) Specialty Group of the American Association of Geographers (AAG), I was awarded first prize in the John Odland student competition for presenting my PhD research.

# **GOOGLE SUMMER OF CODE 2021** (JULY – SEPTEMBER 2021)

I extended the use of the SpInt module and PySAL library for the accessibility calculation for the Competing Destination model application. Read more here.

#### ACCELERATED BUSINESS COLLABORATION GRANT (JUNE – AUGUST 2021)

In this project, I worked in collaboration with Boots to investigate the temporal changes in prescription flows and the effect of Covid-19 restrictions on patients' choice of pharmacy.

# JANE GOLDING SEED CORN FUNDING (MAY 2020)

This research investigated individual-level movement data provided by ONS secure services.

#### **BRISTOL SOLAR POTENTIAL FUNDING** (NOVEM-BER 2019)

As part of a Hackathon event organised by Bristol Open Data & Bristol City Council, my team worked on collecting open-source data and combining them into an interactive map of Bristol's potential for solar energy.

### **CDRC MASTERS DISSERTATION PROJECT** (FIRST PRIZE) (OCTOBER 2018)

This prize was awarded by the Royal Geographical Society & Consumer Data Research Centre & ESRC. My master's dissertation project looked at ways to predict prescription flows to pharmacies with Spatial Interaction Models.

## PUBLICATIONS

• UNDER REVIEW: Hasova, L., Robinson, C. & Zhang, L., Indoor air quality vulnerability

along the urban-rural continuum: A neighbourhood classification for England and Wales

- Robinson, C., Hasova, L. & Zhang, L. (2025) Uneven ambient futures: Intersecting heat and housing trajectories in England and Wales. Transactions of the Institute of British Geographers, https://doi.org/10.1111/tran.12737
- THESIS: Rediscovering the Spatial Structure of Spatial Interaction Through Networks and Advanced Quantitative Methods, read here
- PREPRINT Hasova, L., Tranos, E. and Wolf, L.J., (2022), "Form and Function in Spatial Interaction: A New Approach to Spatial Structure"
- Hasova, L. and Wolf, L. (2022) "Proximity and distance decay", *Geographic Information Science GIS & T; Technology Body of Knowledge*, https://doi.org/10.22224/gistbok/2022.2.3.

# PUBLICATIONS IN PROGRESS

- Robinson, C., Atkins. E., Cantellow, T., Chen, M., Hasova, L., and Singleton, A. (forthcoming). A spatial typology of energy (in)efficiency in the private rental sector in England and Wales using Energy Performance Certificates. Environment and Planning D, Urban Data and Code
- Zhang, L., Hasova, L. & Robinson, C. Prevalence of indoor overheating in future today's and future climate.

## LANGUAGES

CZECH Native speaker

ENGLISH Fluent

## COMPUTER SKILLS

ADVANCED Python, R, GIT, ArcGIS, QGIS, Quarto, LaTeX

BASIC SQL, HTML

## VOLUNTEERING

- I have acted as a co-organizer of PyData Bristol meetup group from 2019 to 2023. I'm still a member of this group.
- I became a member of the Equality, Diversity & Inclusion Committee (EDI) Committee at the Bristol School of Geographical Sciences in September 2023.
- As a member of the Quantitative Social Science research group, I was responsible for organising weekly group seminars and social events.

- As the Postgraduate Research representative for the Human Geography students, I helped rebuild the postgraduate community after the COVID-19 pandemic and created the geogbrowns.info website that provides information about the research community.
- I have been reviewing for the International Journal of Geographical Information Science, Environmental and Planning B and Letters in Spatial and Resource Sciences.