SHUNYA KIMURA

Status: PhD Researcher at the Geospatial Analytics and Computing Group, University College London

Field: Social Data Science, Spatial Analysis

Techs: R, HiveQL, GoogleSQL, Python, Git, Quarto

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EDUCATION

MPhil/PhD Human Geography - University College London
Sep. 2021 - Present

- **Project:** *Unveiling At-Risk Neighbourhoods: A Typology of Online Gambling Behavior in Great Britain Using Large-Scale Consumer Data*; supervised by Professor Paul Longley and Dr Justin Van Dijk.

- **Funding:** Bloomsbury and East London Doctoral Training Partnership (UBEL DTP) - Economic and Social Research Council (ESRC) Studentship; co-funded by GambleAware.

- **Mining Real-World Data::** In collaboration with our industry partner, I work with novel behavioral datasets distributed across their data warehouse system. External data linkages are conducted while adhering to appropriate procedures for information governance. [Technologies: BigQuery, Hive, GoogleSQL, HiveQL, R, GitLab, etc.]

- **Unsupervised Machine Learning:** Identifying at-risk social and geographic groups of customers using combination of dimensionality reduction and clustering methods. [Libraries: arrow, datatable, tidyr, stats, factoextra, motifcluster, sf, ggplot2, etc.]

- **Bayesian Spatial Model:** Quantifying and mapping small-area geographic patterns of risk, and assessing their relationships with potential risk factors. [Libraries: INLA, rstan, spdep, sf, ggplot2, etc.]

BA Geography with Quantitative Methods (1st Class) - University College London
Sep. 2018 - Aug. 2021

- **Relevant Modules:** Introduction to Quantitative Research Methods (73%), Geocomputation (68.5%), Data Analysis (74.5%), Mining Social and Geographic Datasets with Python (80.9%), etc..

- **Independent Work:** Dissertation (74%) utilised GPS-data analysis to empirically investigate the usage of a dockless e-bike share system in London. Several spatial and statistical analyses were conducted, including DBSCAN, KDE clustering, and multilevel negative binomial regression. This work was nominated for the 2021 Transport Geography Research Group Undergraduate Dissertation Prize.

- **Advanced Data Analysis**: Have experience with analysing randomised experiments, observational causal inference methods, quasi-experimental methods and with panel data methods.

CONFERENCES AND TALKS

Bristol Hub for Gambling Harms Research Joint Hybrid Seminar - Oral presentation
Mar. 2024

- *Unveiling Online Gambling Behaviour: A Descriptive Analysis of Consumer Data*. The recording and slides are available on the github link.

GIS Research UK (GISRUK) Glasgow - Oral presentation
Apr. 2023

- The slides are available on the github link.

- 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. doi: 10.5281/zenodo.7828456.

GIS Research UK (GISRUK) Glasgow - Co-author
Apr. 2023

- Winner of the Best Paper Award

- Todd, J., Kimura S., O'Brien, O., and Cheshire, J. *Dominant Trip Purposes within a Dockless Bicycle Sharing System in London*. Proceedings of the 31st Conference of GIS Research UK (GISRUK), Glasgow: University of Glasgow. doi: 10.5281/zenodo.7828473.

CDRC Data Partner Forum 2022 Oxford Saïd Business School - Oral presentation
Nov. 2022

- *A Classification of Online Gambling Behaviour in Great Britain*. The slides are available on the github link.

GIS Research UK (GISRUK) Liverpool - Oral presentation   Apr. 2022

- Winner of the CASA Prize for Best Paper in Spatial Analysis. The slides are available on the github link.

- 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.

GRANTS

UBEL DTP International Institutional Visit Scheme - GBP 1,200   Sep. 2021 - Present

- A travel grant for a 35-day visiting research period at the Institute of Disaster Mitigation for Urban Cultural Heritage, Ritsumeikan University at Kyoto, Japan. Invited by Professor Keiji Yano.

RECENT EXPERIENCES

Senior Postgraduate Teaching Assistant - University College London   Jan. 2022 - Apr. 2023

- **Teaching:** Lead seminars and held academic support and feedback hours for the following modules: (1) Geography in the Field I and (2) II; (3) Geocomputation; (4) Introduction to Quantitative Research Methods; and (5) Data Analysis

Postgraduate Teaching Assistant - Queen Mary University London   Nov. 2022 - Jan. 2023

- **Teaching:** Lead seminars for the following module: Introduction to Research Methods

Data Analyst Intern - BBC   Aug. 2021 - Sep. 2021

- Utilised R and Python to analyze unstructured data from social media and web scraping, generating business insights.

- Rapidly acquired and implemented new skills within a tight deadline.

- Presented findings to various teams, providing key benchmarks for assessing the success of BBCs social media platforms.

Data Analyst Intern - Climate Policy Initiative   Jun. 2020 - Jul. 2020

- Assisted in the creation of The Net Zero Finance Tracker through data gathering and dashboard design. This tool provides a comprehensive assessment of the alignment between public and private finance and the Paris Agreement goals.

- Quickly adapted and learned new concepts in climate finance, showing flexibility in an unfamiliar domain.

PROFESSIONAL DEVELOPMENT

Introduction to Bayesian Inference and Modelling - UCL Social Data Institute   Jul. 2023

- Participated in a four-day intensive course on Bayesian inference. The course covered the fundamentals of Bayesian statistics using RStudio and Stan. Taught by Dr Anwar Musah.

- Acquired skills in performing spatial risk prediction and quantifying uncertainty levels using exceedance probabilities for aerial data, which are currently employed in my PhD project.

Advanced Topics in Social & Geographic Data Sciences - UCL Geography   Jan. 2022 - Mar. 2022

- Audited a module in the Social & Geographic Data Science MSc course. Led by Dr Stephen Law.

- Revised topics on statistical learning, including Deep Learning, Convolutional Neural Networks, and GeoAI.

LANGUAGE PROFICIENCY

- **Japanese:** Native proficiency; **English:** Full professional proficiency; and **Arabic:** Beginner proficiency.