

Yuanmo He

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Data scientist with 5+ years of experience designing and executing data-driven research projects using large-scale behavioural data. Proficient in Python, SQL, and R, with expertise in statistical modelling, machine learning, and causal inference. Adept at cross-functional collaboration and translating complex analyses into actionable insights for technical and non-technical audiences. Eager to apply these skills to inform strategy, optimise decision-making, and drive measurable impact at scale.

EXPERIENCE

Postdoctoral Fellow in Advanced Quantitative Methods, The London School of Economics (LSE) 09/2024 – present

- Supervised master's dissertations applying Generative AI and deep learning algorithms to study topics such as identity construction and algorithmic bias, advising on study design, model evaluation, and interpretation of results.
- Taught Computer Programming, Social Network Analysis, and Applied Regression Analysis, earning average evaluation 4.5/5.
- Received LSE's Excellence in Education Award for exceptional contributions to education and the student experience.

Doctoral Researcher in Social Data Science, LSE 09/2020 – 09/2024

- Led end-to-end research projects using large-scale digital trace data to study socioeconomic inequality in daily behaviour and social interactions, applying machine learning, natural language processing, causal inference, and social network analysis.
- Designed a scalable and theory-driven unsupervised method to infer the socioeconomic status (SES) for 3.5M Twitter users, demonstrating how social and behavioural insights can enable scalable user segmentation for downstream analysis.
- Designed and executed quasi-experiments (simulating A/B tests) to evaluate the effects of SES on Twitter user behaviour.
- Applied NLP and LLM methods to examine differences in social interactions on Twitter between high- and low-SES users.
- Analysed mobile-tracking data to uncover patterns in consumption behaviour across socioeconomic groups, using regression, embeddings, clustering, and community detection—skills transferable to customer segmentation and engagement metrics.
- Built ETL pipelines tailored for various projects, leveraging Python, R, SQL, Spark, Azure Cloud, Twitter API, Google Geocoding API, and Facebook Marketing API.
- Presented research at leading academic conferences, including the International Conference on Computational Social Science and the Annual Meeting of the American Sociological Association.
 - Awarded an honourable mention at the 2023 International Conference on Computational Social Science.

Seminar Leader/Graduate Teaching Assistant, LSE 09/2021 – 04/2023

- Communicated theoretical concepts and practical implementations of computer programming, machine learning, and natural language processing to students from diverse academic, technical, and cultural backgrounds.
- Delivered hands-on computer lab sessions to classes of 20+ students on programming, ML and NLP with Python and R.

PUBLICATIONS

Peer-reviewed: Yuanmo He and Milena Tsvetkova. 2023. A Method for Estimating Individual Socioeconomic Status of Twitter Users. *Sociological Methods & Research*. <https://doi.org/10.1177/00491241231168665>.

- Journal Impact Factor 6.5; top journal in quantitative social science and sociology.
- Paper Altmetric score 78; the top trending paper published in the journal from 2023 until June 2025 ([OOIR link](#)).

Preprint: Yuanmo He and Milena Tsvetkova. 2025. High Socioeconomic Status is Associated with Diverse Consumption across Brands and Price Levels. *arXiv*. <https://doi.org/10.48550/arXiv.2506.13840>

EDUCATION AND HONORS

PhD Social Research Methods (Passed viva with no corrections), LSE 09/2020 – 09/2024

- Granted the LSE PhD Studentship for four years (£140,000).

MSc Applied Social Data Science (Distinction), LSE 09/2019 - 09/2020

- Distinction in all modules: Computer Programming, Applied Machine learning, Quantitative Text Analysis, Data for Data Scientists, Multivariate Analysis and Measurement, Fundamentals of Social Science Research Design, Capstone Project.

BSc Social Sciences (First Class Honours), University College London (UCL) 09/2016 - 06/2019

- Awarded the UCL Institute of Education **Faculty Medal** (the best final year undergraduate student in the faculty).
- Achieved **the highest final grade** of all graduates in the Social Research Institute.
- Relevant modules: Quantitative & Qualitative Research Methods, Causal Analysis, Game Theory, Social & Cognitive Psychology

Additional training and certificates

- AI Safety Fundamentals-Alignment, BlueDot Impact, 2025
- Generative AI with Large Language Models, DeepLearning.AI, 2024
- Complex Systems Summer School, Santa Fe Institute, 2023
- Inequality Across Scales, Space, Time, Domains, The Abdus Salam International Centre for Theoretical Physics, 2023

SKILLS AND INTERESTS

Programming language & statistical software: Python, R, SQL, Spark, Git, Stata, SPSS, Tableau, Microsoft Excel.

Methods: machine learning, natural language processing, LLM, causal inference, social network analysis, multivariate analysis.

Languages: Chinese (native), English (bilingual). Writing bilingual blogs at yuanmohe.substack.com and my WeChat Public Account.

Stand-up Comedy: Semi-finalist at So You Think You're Funny? 2025 national competition; performing at the Edinburgh Fringe.