

Son-Kien Nguyen

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Professional Summary

Quantitative social and health policy researcher specialising in the analysis of large administrative and panel datasets to understand inequalities in care and health outcomes. I have extensive experience in data cleaning, linkage, and longitudinal statistical modelling using R, Stata, and Python, applying methods such as fixed-effects, difference-in-differences, survival analysis, and matching to evaluate service delivery and population health impacts. My work has included collaborative research with NHS and public-sector partners, where I have contributed evidence to inform workforce planning, care system resilience, and policy decision-making. I develop reproducible analytical workflows and present findings clearly to interdisciplinary teams, practitioners, and stakeholders, ensuring accessible translation of quantitative analysis into meaningful insights for care practice and public policy.

Advanced Research and Technical Capabilities

- **Applied quantitative analysis:** Skilled in causal inference (DiD, IV, event study, quasi-experimental evaluation), multilevel and panel models, mediation analysis, and time-series methods. Experienced in analysing longitudinal surveys and routine administrative datasets to examine inequalities in health and social care experiences and outcomes.
- **Administrative data management and linkage:** Extensive experience cleaning, coding, harmonising, and linking multi-source administrative datasets (e.g., workforce records, service-use data, population surveys). Competent in preparing research-ready datasets, addressing missingness, and ensuring secure, reproducible data linkage across systems.
- **Statistical programming:** Proficient in R, Stata, and python for data manipulation, regression modelling, and reproducible workflows. Capable of designing transparent, well-documented analytical pipelines for large-scale administrative and panel data.
- **Quantitative modelling and interpretation for policy:** Applied regression and longitudinal modelling to support evidence-based decision-making in health and care contexts. Skilled in visualising and communicating results to interdisciplinary teams, practitioners, stakeholders, and lived-experience partners.
- **Computational and scalable methods:** Experienced with high-dimensional epidemiological and econometric analyses, parallelisation, and efficient handling of large administrative datasets, ensuring analytical transparency and reproducibility.
- **Reproducible and collaborative research:** Advanced in version-controlled workflows (Git/GitHub), collaborative coding environments, and LaTeX/RMarkdown reporting. Committed to co-produced research, open science, and making quantitative findings accessible to policy and practitioner audiences.

Research Experiences

Research Assistant, Saïd Business School, University of Oxford
Project on Human–AI Collaboration in Clinical Imaging and Regulatory Impacts

Aug 2025 – Dec 2025

- Designed and implemented a randomised controlled experiment with NHS radiologists to evaluate the effects of AI-based decision support on clinical image interpretation.
- Developed and pre-registered a causal identification strategy using a difference-in-differences framework with clinician-level randomisation and balanced case allocation.
- Integrated machine learning models (e.g., random forests, XGBoost) into the evaluation framework to examine how algorithmic support influences diagnostic confidence, accuracy, and uncertainty.
- Created a secure and reproducible analytical workflow, ensuring compliance with NHS information governance, anonymisation standards, and ethical approvals.
- Applied multilevel and longitudinal statistical models to estimate performance effects under different support conditions, supported by robustness checks (e.g., placebo timing tests, matched-sample sensitivity tests).
- Collaborated with clinical and regulatory partners to interpret findings and prepare outputs for policy-facing dissemination.

Research Associate, University of Reading
HIP Collaborative Innovation Fund, Royal Berkshire NHS Foundation Trust

Nov 2024 – Feb 2026

- Cleaned, linked, and harmonised large-scale NHS workforce and administrative datasets (staff records, demographics, organisational characteristics) to construct research-ready variables for longitudinal analysis.
- Developed and compared predictive and longitudinal models (multilevel regression, survival analysis, time-series methods, random forests, XGBoost) to forecast workforce instability and examine patterns of staff retention and exit.
- Conducted descriptive and inferential analyses to identify organisational and demographic factors associated with turnover, providing evidence to support workforce planning and service delivery decisions.
- Worked collaboratively with NHS managers, workforce leads, and clinical stakeholders to co-design analyses and interpret results for practical implementation.
- Demonstrated how early-warning indicators and longitudinal monitoring can support resilience planning in the context of shocks such as pandemics and demographic change.
- Outputs include planned submissions to top-tier peer-reviewed journals and policy reports supporting healthcare workforce and service planning.

Research Assistant, University of Birmingham

Jan 2023 – Jan 2024

British Academy Funded Project, in collaboration with the University of Surrey

- Linked and harmonised large-scale administrative health and employment datasets (SINAN disease notifications and RAIS labour records, Brazil) to analyse the effects of epidemic exposure on labour market participation and early career trajectories.
- Conducted longitudinal and cohort-specific analyses to examine how dengue infection influences school-to-work transitions and early labour market entry.
- Applied quasi-experimental methods (difference-in-differences, matching, sensitivity and robustness checks) to strengthen causal identification of health–labour impacts.
- Managed complex multi-source datasets, resolving inconsistencies across administrative systems and ensuring high-quality, reproducible data linkage.
- Produced descriptive epidemiological and socioeconomic profiles of infection and employment, supported by clear visualisations for research and policy audiences.
- Generated policy-relevant insights into how climate-linked health shocks shape vulnerability, inequality, and resilience among young people in emerging economies.
- Prepared academic manuscripts and contributed to conference and workshop dissemination.

Research Intern, University of Western Australia

Dec 2020 – Apr 2021

- Examined how episodes of political protest influenced maternal and child healthcare utilisation in low- and middle-income countries.
- Merged, cleaned, and harmonised large-scale survey and event datasets (Demographic and Health Surveys, ACLED, GDELT) to construct geotemporal indicators of protest exposure at the subnational (Admin3) level.
- Estimated impacts on maternal and child health outcomes (antenatal care, skilled birth attendance, institutional delivery, vaccination coverage) using multivariate regression with robustness and subgroup analyses.
- Identified differential effects among women of reproductive age and children under five, highlighting vulnerability and inequalities in access to essential services.
- Applied data linkage and geospatial methods to integrate routine health surveys with conflict exposure metrics in a reproducible analytical workflow.
- Collaborated with academic supervisors to interpret findings and develop policy-relevant insights on service resilience and access to care in fragile settings.
- Contributed evidence to public health debates on equity, prevention, and early intervention in contexts of instability.

Research Assistant, University of Birmingham Oct 2024 – Present
Board Gender Diversity and Environmental Performance under the EU-ETS

- Led data-intensive research on firm-level carbon emissions and governance structures under the EU Emissions Trading Scheme (EU-ETS), focusing on gender diversity impacts.
- Merged large-scale Orbis and Compustat firm databases with EU-ETS emissions data; conducted rigorous data cleaning, matching, and harmonisation across sources and years.
- Key output: Working paper targeting to CABS 4 Journals.

Research Assistant, University of Birmingham Jul 2023 – Oct 2023
Fully Funded Department of Transport Project

- Reviewed UK labour market responses during structural reform periods to inform unemployment insurance and regional support policy.
- Synthesised evidence and drafted technical annexes for government white papers supporting the Department for Transport's workforce resilience strategies.
- Co-authored contribution published on the UK Government policy briefing site: [Transport Analysis Guidance and Employment Parameters](#)

Research Assistant, Central Bureau of Statistics Netherlands Jul 2024 – Mar 2025
Birmingham Business school, Seedcorn project - Research Incubator Scheme.

- Conducted econometric analysis on labour market transitions using large-scale administrative datasets.
- Investigated post-pandemic employment adjustments in collaboration with partners across the UK and EU.

Research Associate, RMIT University (Australia) Sep 2016 – Mar 2021
Ministry of Science and Technology, Fully Funded STEM

- Research on microfinance and financial inclusion directly addressed wealth inequality and its political consequences in emerging economies.
- Led econometric modelling and statistical analysis for projects on financial development and microfinance in Southeast Asia.
- Contributed to four peer-reviewed journal publications and supported evidence-based recommendations for government policy.

Selected Teaching and Academic Leadership

Postgraduate Teaching Associate, University of Birmingham Sep 2022 – Present

- *Taught postgraduate and undergraduate modules including Health Economics, Data Analytics, Quantitative Methods, Public Sector Economics, and Economics Perspectives.*
- *Designed tutorials and practical sessions that emphasised applied statistical and econometric methods using real-world datasets.*
- *Provided academic mentoring, feedback, and one-to-one guidance to students, supporting both coursework and dissertation projects.*
- *Contributed to curriculum development by integrating data science applications and reproducible research practices into teaching materials.*

Associate Lecturer, University of Northampton

Nov 2022 – Dec 2024

- Led design and delivery of R-based **Applied Econometric and Finance** module, including curriculum structure, day-to-day teaching materials, coding exercises, and student learning activities.
- Supported students in applying analytical techniques to real economic datasets and improving data literacy and critical writing.
- Promoted digital pedagogy and critical writing skills in applied financial contexts.
- Developed pedagogical materials and tutorials tailored to digital and hybrid learning environments.

Lecturer, Eastern International University (Vietnam)

Dec 2017 – Feb 2020

- Course Leader
- Led course planning and delivery for undergraduate modules in Data analytics, Applied Financial Econometrics, Computational Methods
- Coordinated academic timetabling, assessments, and team-teaching across the department.
- Liaised with academic leadership on learning innovation, quality assurance, and student feedback integration.
- Designed and evaluated assessments, incorporating real-world case studies and forecasting models.
- Mentored postgraduate students, contributed to curriculum enhancement, and promoted active student engagement.

Guest Lecturer and Teaching Assistant, Erasmus University Rotterdam, Goethe University Frankfurt

2016 – 2018

- Delivered applied seminars in development finance and supervised final-year dissertations.
- Engaged in programme design for double-degree economics programmes.

Education and Qualifications

PhD in Economics, University of Birmingham (UoB), Pass VIVA with minor correction

Sep 2021 – Dec 2025

- Investigated how firms and markets respond to sustainability signals and environmental misconduct. Applied econometric methods and machine learning to large-scale datasets, including Compustat, EU-ETS, Violation Tracker, and Refinitiv ESG.
- Developed reproducible pipelines for data linkage and forecasting. Findings provide evidence on corporate resilience under shocks, aligning with policy debates on sustainable business, health systems, and AI-driven decision support.

Doctoral Training Programme, Royal Economic Society

Oct 2024 – Apr 2025

MA in Economic Development, Erasmus University Rotterdam

Oct 2013 – Oct 2015

Postgraduate certificate, Monash University

Jan 2021 - Jul 2021

Grants and Awards

- **Departmental PhD Scholarship**, UoB (2021): Awarded +3 years of support.
- **Development funds**, UoB: supported advanced training at Oxford, Michigan State University, LSE.
- **Certificate of Distinction**, University of Western Australia.

- **Research Excellence Certificate**, Vietnam Netherlands Program.
- **Best Master’s Thesis, Distinction**, Erasmus University Rotterdam: Awarded £300.
- **National Project (NAFOSTED)**, Ministry of Science and Technology, Vietnam: Awarded £5,000.

Selected Working Papers (during PhD)

- **“Improving Staff Retention at the RBFT – Econometric Data Analytics, Probabilistic Forecasting and Management Intelligence”** Status: Ongoing project. Target: Human Resource Management Journal (CABS 4). Co-authors: Shixuan Wang and Rita Fontinha
- **“Forecasting USA Output Gap with Green-Benchmarked Divisia Monetary Aggregates”** Status: Submitted to Energy Economics (CABS 3). Co-authors: Jane Binner, Rongrui Duan, Anandadeep Mandal, Soumya Bhadury
- **“Board Gender Diversity and Environmental Performance in Europe”** Status: Empirical work complete. Co-authors: Alessandra Guariglia, Elisa Tosetti
- **“When Birds of Different Feathers Flock Together: Ethnic Diversity and Armed Conflict”** Status: Empirical work complete. Target: Personality and Social Psychology Bulletin (CABS 4). Coauthors: Miguel R. Ramos, Matt Bennett, and Unaysah Mogra

List of Presentations

- *Oxford Economics Summer School, 2022*
- *8th Ethical Finance and Sustainability Conference (EFS 2025), Edinburgh*
- *Royal Economic Society Easter School, 2025*
- *BISCA Postgraduate Researcher Symposium on AI for Sustainability Research, Bristol, 2025*
- *99th Annual Conference, Western Economic Association International (WEAI) Seattle, 2024*
- *BEAR Postgraduate Research Conference, Birmingham, 2025*

Previous Publications

- Ercolani, M. G., Bromfield, J. P., Selim, S., Chua, T. T., **Nguyen, K. S.** (2024). *A Review of TAG A2.3 Employment Parameters*. Department for Transport, United Kingdom.
- Pham, T. T. T., Nguyen, T. V. H., **Nguyen, K. S.**, Nguyen, H. H. (2023). “Does Planned Innovation Promote Financial Inclusion: Evidence from Vietnamese SMEs.” *Eurasian Business Review*.
- Pham, T. T. T., **Nguyen, K. S.**, Nguyen, H. H., Nguyen, L. T., Vo, V. X. (2021). “Dynamic Entrepreneurship, Planned Innovation and Firm Performance: Evidence from Vietnam.” *Heliyon*.
- **Nguyen, K. S.**, Vo, V. X., Vo, T. T. M. (2020). “Innovative Strategies and Corporate Profitability: The Positive Resource Dependence from Political Network.” *Heliyon*.
- **Nguyen, K. S.** (2020). “Volatility and Specific Risk Toward Family’s Performance in an Emerging Country.” *Asia-Pacific Financial Markets*.
- Nguyen, T. V. H., Nguyen, B. T., **Nguyen, K. S.**, Pham, H. N. A. (2019). “Asymmetric Monetary Policy Effects on Cryptocurrency Markets.” *Research in International Business and Finance*.
- Pham, T. T. T., **Nguyen, K. S.** (2019). “Does Microfinance Influence Parents’ Decision to Send a Child to School or to Work? Evidence from Vietnamese Rural Households.” *The Journal of Developing Areas*.
- Pham, T. T. T., Nguyen, T. V. H., **Nguyen, K. S.** (2019). “Does Bank Competition Promote Financial Inclusion? Cross-Country Evidence.” *Applied Economics Letters*.
- Nguyen, D. V., Nguyen, H. T., **Nguyen, K. S.** (2018). “Ownership Feature and Firm Performance via Corporate Innovation: Does it Really Matter for Vietnamese SMEs?” *Journal of Asian Business and Economic Studies*.
- Nguyen, D. V., Nguyen, H. T., **Nguyen, K. S.** (2017). “Economic Growth: The Role of Knowledge Economy in the Context of Selected Asian Countries.” *Journal of Asian Business and Economic Studies*.

Contribution to Funded Research Projects

- **HIP Collaborative Innovation Fund (Royal Berkshire NHS Foundation Trust)** – Forecasting NHS staff retention using machine learning and large-scale workforce data. [University of Reading]
- **British Academy Funding** – Analysing the labour market consequences of dengue outbreaks using Brazilian administrative data (RAIS and SINAN). [University of Birmingham]
- **National Foundation for Science and Technology Development Project** – Research on financial development, microfinance, and innovation among SMEs in Southeast Asia. [RMIT University, Australia and Ministry of Science and Technology, Vietnam]

Peer Review Activity

Reviewer for: Journal of Research Policy (4* ABS; A* ABDC); British Accounting Review, Technological Forecasting & Social Change (3* ABS; A* ABDC); Finance Research Letters, Economic Modelling, Global Finance Journal (A ABDC; Scopus 1).

References

References Available Upon Request