

Shuyu Li

Department of Economics
Birmingham Business School
University of Birmingham, UK
Email: sx11343@student.bham.ac.uk

Education

University of Melbourne Melbourne, Australia
*Exchange Student in Economics (Environmental Economics; Supervisors: **Leslie Martin**)* *Apr. 2025 – Apr. 2026*
• Funded by Jim Perkins PhD Scholarship (2/50).

University of Birmingham Birmingham, UK
*PhD in Economics (Environmental Economics; Supervisors: **Matthew Cole, Robert Elliott**)* *Sept. 2022 – Present*
• Achieved **distinction** in all courses, consistently ranking in the **top 2** of the class.
• Excelled in Advanced Research Training in **Econometrics** (86, 1st), Macroeconomics (76, 1st), and Microeconomics (71, 2nd).
• Demonstrated strong research capabilities in **Advanced Research Methods** (73, 1st).

University of Leeds Leeds, UK
*MSc in **Business Analytics** and Decision Sciences (with Distinction)* *Sept. 2021 – Jun. 2022*
• Outstanding performance in **Quantitative Analysis** (98, 1st) and **Advanced Business Analytics & Forecasting** (82, 1st).
• Gained practical skills in **Machine Learning** course, alongside proficiency in **Effective Data Visualizations** (72, Top 3).

Jinan University Guangdong, China
MSc in International Business *Sept. 2018 – Jun. 2020*
• Was admitted with the **2nd** place among **over 300** candidates in 2018.
• Focused on **Environmental Economics** and **Green Finance**.

Research Interest and Skills

- **Environmental Economics, Policy Evaluation, Machine Learning, Causal Inference, Textual Analysis.**
- Focus on the **causal** impact of environmental regulation and policy on **firms, public behaviors, and environmental outcomes**, leveraging econometric and **machine learning approaches**.
- Proficient in statistical analysis and machine learning techniques, including **econometric models** (IV, DID, RDD), SVM, Random Forest, and **transformer-based Large Language Models** like ChatGPT, BERT, and T5.

Projects

Air pollutant dispersion in street canyons based on **machine learning** (Research Assistant) Feb. 2023
• Funded by The Institute for Global Innovation (IGI) Clean Air Theme from University of Birmingham (£8,000).
• Collaborated with a multidisciplinary team, leveraging skills in data analysis, environmental economics, and **machine learning**.

Publications

- Dai, Y., Qian, J., Yang, Y., Liu, B., **Li, S.**, Zhang, K., Xie, Q., Tong, C., Chen, Y., MacKenzie, A., & Shi, Z. Significant benefits of pollution alerts for cleaner air and better health. *PNAS Nexus*.
- **Li, S.**, Dai, Y., Chen, Y., Liu, F., & Zhang, J. (2025). Using explainable machine learning to better understand the environmental and socioeconomic contributions to preterm birth. *Environmental Pollution*, 127183.
- Kalisa, E., Sudmant, A., Rumberambuga, R., Ujeneza, Y., Bower, J., & **Li, S.** (2022). The case for clean air in Kigali: An assessment of sources and solutions, economic impacts, and policy implications.
- Fu, J., **Li, S.**, Ng, A.W. (2020). Challenges and countermeasures in the development of China's green bond market. *Sustainable Energy and Green Finance for a Low-carbon Economy: Perspectives from the Greater Bay Area of China*. pp. 47-63. <http://dx.doi.org/10.1007/978-3-030-35411-4>

Awards and Honors

University of Birmingham

Sept. 2022 – Present

- Departmental PhD Scholarship, Department of Economics (£26,538/annual, 2022-2025)
- China Scholarship Council (£14,400/annual, 2023-2026)

Jinan University

Sept. 2018 – Jun. 2020

- **2nd** Class Scholarship for Academic Excellence (Top 5%, 2019 and 2020)

Teaching Assistant

- Environmental Economics for Undergraduate
- Environmental Economics for Postgraduate

Conference & Workshop Experience

Brown Bag Seminar, University of Melbourne | *Invited Speaker*

Oct. 2025

- Invited to present the first two chapters of PhD thesis to the Department of Economics.
- Topic: Environmental Policy Uncertainty, Media Bias, and Green Party Voting.

2024 Shaping Sustainable Society Workshop | *Co-Organizer*

Aug. 2024

- Co-organized a high-level interdisciplinary workshop at the University of Birmingham.
- Coordinated participation of senior faculty from **Oxford, Cambridge, and Aston University**, fostering dialogue between Economics, Engineering, and Environmental Science departments.

EAERE Summer School (Austria) | *Scholarship Recipient*

Jun. 2024

- Selected for a **full scholarship** to attend the European Association of Environmental and Resource Economists school.
- Underwent intensive training in **Machine Learning, Spatial Statistics, and Remote Sensing**.
- Presented working paper: “**Measuring environmental policy uncertainty using transformer-based ML methods.**”

BBS Doctoral Conference | *Chair & Co-Organizer*

May 2023 & May 2024

- Chaired sessions and organized the annual doctoral conference for two consecutive years.
- Facilitated peer review and networking for PhD candidates across the Business School.

REStud Tour (Oxford University) | *Selected Delegate*

May 2023

- Attended the Review of Economic Studies meetings to engage with top-tier job market papers in econometrics and policy evaluation.

Previous Symposiums

2018 – 2019

- **2019 City Green Development Forum:** Participant in roundtables on green finance and urban policy.
- **China-Korea Joint Symposium (2018):** Engaged in sessions on environmental efficiency and public health.

Skills

Technical Skills & Research Methods:

Python & R: Advanced statistical programming including Machine Learning (Scikit-learn, PyTorch), Causal ML, and Natural Language Processing (LLMs/Transformers). Experienced in high-dimensional data analysis.

Stata: Traditional econometric modeling and panel data analysis.

Generative AI & Workflow: Expert in integrating AI tools for code optimization, rapid prototyping, and language-agnostic data solutions.

Visualization & Documentation: PowerBI (Certified Data Analyst Associate), LaTeX (Professional Typesetting).

Languages:

Chinese: Native Proficiency

English: Fluent (Professional Proficiency)