# Lauren Leek

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• laurencleek

Dutch & Australian

# Summary

Final-year political economy PhD researcher at the London School of Economics and the European University Institute with a strong interest in social data science and quantitative methods. Passionate for applying machine learning and causal inference.

## Skills

- Technical skills: Python R Stata SPSS LaTeX Git AWS
- Soft skills: [Presenting] [Collaboration] [Policy-making] [Problem-solving]
- Quantitative Methods: Proficient and wide experience in causal inference (difference-in-differences, synthetic controls, regression discontinuity, instrumental variable and experimental designs), survey experiments and design, and applying statistical analysis (Cross-sectional timeseries and spatial econometrics) to answer social science research questions.
- Computational Social Science: Wide expertise in applying Natural Language Processing (Large Language Models and (un)supervised machine learning) in R and Python, and training in applied machine learning (regularization, tree-based algorithms, active learning) applications for social science research. General data science skills with basic knowledge of Docker, APIs, cloud computing, static and dynamic web scraping, SQL.

# **Professional Experience**

European Central Bank (ECB), DG Economics, Frankfurt, Germany

PhD Trainee

May 2023 – Nov 2023

• Set-up and pioneered the first use case of Large Language Models at the ECB. Led independent applied research on detecting monetary policy constraints using 18000+ speeches.

### Research Assistantships

- RA Data Science, Dr. Daniele Garadi, King's College London Jan 2024 Present Digitalising large amounts of financial data using Python and Amazon Web Services.
- RA Political Behaviour, Prof. Chris Anderson, London School of Economics Nov 2023 March 2024 Gathering and visualising data on democracy, political behavior and institutional trust using R.
- RA Mixed Methods, Prof. Philipp Genschel, European University Institute Jan 2022 Jan 2023 Conducting public opinion surveys and policy analysis on the Russian attack on Ukraine; Part of the EUI-YouGov collaboration.
- Qualitative Coder, Solid Project, European University Institute Oct 2021 March 2022 Performing qualitative coding of Dutch election news coverage.

#### RaboResearch, Rabobank, Utrecht, Netherlands

Economics Intern

Aug 2019 – Jan 2020

• Conducted empirical research on the relationship between circular economy and financial performance. Aided in developing a client sustainability survey and composite sustainability score.

### Teaching Experience

Updated: November 10, 2024

• PhD level: Teaching Assistant, Quantitative Methods, European University Institute	2022
$\bullet$ $\mathit{MSc}$ $\mathit{level}$ : Dissertation surgeon (supervised 32 students), London School of Economics	2024
• BSc level: Teaching Assistant, Quantitative Methods , King's College London Teaching Assistant, Microeconomics, Erasmus School of Economics	2024 2019

### Other Work Experience

Sailing Instructor, Restaurant Worker, Exam Trainer (Economics), Coding Teacher, Substitute Teacher, Football Trainer, Treasurer at a Student Association, Treasurer at a Debating Committee

# Education

#### London School of Economics, London, UK

Extended visiting PhD researcher (European studies and data science)

Sept 2023 - Oct 2024

### European University Institute, Florence, Italy

PhD in Political and Social Sciences (Supervisors: Simon Hix & Waltraud Schelkle) Sept 2021 – Present Dissertation: Essays in Central Bank Communication and Natural Language Processing

### London School of Economics, London, UK

MSc in Political Economy of Europe (Distinction)

Sept 2020 - Sept 2021

Awards: Best Dissertation and Best Overall Performance

Erasmus University College, Rotterdam, Netherlands

BSc in Liberal Arts and Sciences (Summa Cum Laude)

Sept 2017 - Sept 2020

Major: Economics, Minor: Big Data

Awards: Deans list 2017-2020 of top 5% students

# **Publications and Working Papers**

Genschel, P., Leek, L., Weyns, J. "The Ukraine War and European Integration: Institutional Development During the Crisis" *Journal of European Integration* (2023)

**Leek, L., Bischl, S.** "How Central Bank Independence Shapes Central Bank Communication: A Large Language Model Application" *Under Review* (n.p)

Mascioli, L., Leek, L. "Neighbourhood effects on places' planning capacity: Evidence from Next Generation EU" R&R at Regional Studies (n.p)

**Leek, L.** "Who drives who? Agenda-setting evidence from the multi-level eurosystem" Working Paper (2024)

Leek, L., Bischl, S., Freier, M. "Introducing Textual Measures of Central Bank Policy-Linkages Using ChatGPT" Working Paper (2024)

# Presentations, Talks & Professional Service

Presentations at conferences and talks at invited workshops: The Political Economy and Society conference (MPI, Cologne), The European Governance and Politics Programme Seminar Series (EUI, Florence), The European interdiscipinary working group (EUI, Florence), YouGov-EUI Data conference (EUI, Florence), How People Think About the Economy (UCL, London), European Studies Association (EUSA, Pittsburgh), Council of European Studies (CES, Reykjavik), Analytical Communications (ECB, Frankfurt), Max Planck Summer School for Women in Political Economy (MPI, Cologne), Economics and AI (DG Economics ECB, Frankfurt), LLMs in Political Science (UBL, Barcelona), Comptext (VU, Amsterdam), Central Banking (Sciences Po, Paris), Computational Social Science series (UCD, Dublin) Reviewer for Review of International Political Economy and Review of International Organizations

Co-organizer of the EU Studies Working Group, European University Institute 2021-2023