

# Yen-Chieh (David) Liao

The Centre for Artificial Intelligence in Government and the Institute for Data and AI  
University of Birmingham

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## ACADEMIC POSITIONS

### University of Birmingham

Research Fellow in NLP at the Centre for Artificial Intelligence in Government

Sep 2024 –

Affiliate Fellow at the Institute for Data and AI

Jul 2025 –

### University College Dublin

Post-doctoral Researcher at the School of Politics and International Relations

Aug 2023 – Sep 2024

### University of Bamberg

Pre-doctoral Researcher at the Chair of Comparative Politics

Dec 2021 – Dec 2022

## EDUCATION

### University of Essex

PhD in Politics

Oct 2017 – Jan 2023

### National Taipei University

BA and MA in Public Administration and Policy

## RESEARCH

### Publications

*Forthcoming* Electoral Systems and Geographically-Targeted Oversight: Evidence from Taiwan Legislative Yuan. (with Li Tang) *Electoral Studies*.

**2025** Catalysts for Progress? Mapping Policy Insights from Energy Research. *Energy Research and Social Science*. (with Brian Boyle, Stefan Müller, Sarah King and Robin Rauner) [DOI: <https://doi.org/10.1016/j.erss.2025.103955>]

**2025** Bureaucratic Reinterpretation of Leaders' Ideologies: A Case Study of People's Daily's Commentary on Xi Jinping Thought on Diplomacy (in Chinese). *Mainland China Studies*. (with Yi-Nung Tsai) [[https://doi.org/10.30389/MCS.202503\\_68\(1\).0003](https://doi.org/10.30389/MCS.202503_68(1).0003)]

**2024** (Mis)perception of Party-voter Congruence and Satisfaction with Democracy. *Political Science Research and Methods*. (with Li Tang and Royce Carroll) [DOI: <https://doi.org/10.1017/psrm.2024.48>]

**2024** Electoral Reform and Fragmented Polarization: New Evidence from Taiwan Legislative Roll Calls. *Legislative Studies Quarterly* [DOI: <https://doi.org/10.1111/lsq.12459>]

**2023** The Role of Rituals in Adversarial Parliaments: An Analysis of Expressions of Collegiality in the British House of Commons. (Invited Contribution) *Historical Social Research*. 48 (3): 209-234. (with David Beck and Thomas Saalfeld) [DOI: <https://doi.org/10.12759/hsr.48.2023.31>]

**2015** The Rationale for Supporting Nuclear Power: Analysis of Taiwanese Public Opinion Survey. *International Relations of the Asia-Pacific*. 15 (1): 147-176. (with Xiaochen Su, Chung-li Wu, Tai-De Lee, and Chen Tsao) [DOI: <https://doi.org/10.1093/irap/lcu019>]

### Under Review

Estimating Factions of Red Guard under Mao's China: A Slogan-based Text Scaling Method with Historical Documents. (with Yi-Nung Tsai) *Invited to Revise and Resubmit. Journal of Computational Social Science*.

Electoral Reform and Issue Attention in Legislative Oversight: From SNTV to Mixed-Member Majoritarian System in Taiwan. (with Yu-Ceng Liao and Yi-ting Wang) *Under Review*.

Multi-Agent LLM Systems for Synthetic Survey Experiments in Ethically Constrained Settings. (with Linette Lim and Slava Jankin) *Under Review*.

### **Selected Working Papers**

Cross-Lingual Stance Detection in Political Texts: Comparison and Application. (with Stefan Müller)

Political Text Analysis with Embedding Regression: From Multilingual to Cross-lingual Application. (with Chen Zheng, Winnie Xia and Slava Jankin)

## **ACADEMIC TRAINING PROGRAMMES**

2024 *ARCHER2 Message Passing Programming with MPI (Edinburgh Parallel Computing Centre)*

2023 *Oxford Large Language Models for Social Science Workshop* | 57<sup>th</sup> *Essex Summer School*: Advanced Survey Data Analysis and Survey Experiments

2022 56<sup>th</sup> *Essex Summer School*, Introduction to Social Network Analysis

2021 *Machine Learning Summer School*: Standard Training Programme | 55<sup>th</sup> *Essex Summer School*: Advanced Methods for Text-as-Data–Natural Language Processing; Quantitative Methods for Causal Inference and Policy Evaluation

2019 54<sup>th</sup> *Essex Summer School*: Introduction to Bayesian Analysis for the Social Sciences

2018 53<sup>rd</sup> *Essex Summer School*: Ideal Point Estimation and Scaling Methods; Generalized Linear Models

## **CODE & OPEN-SOURCE PACKAGES**

**flaiR**: An R wrapper for accessing the Flair NLP library in Python.

**legisTaiwan**: An R package for accessing real-time Taiwan Legislative Data.

**asmcjr**: An R Package for Supporting the Book 'Analyzing Spatial Models of Choice and Judgment.

## **TEACHING & SUPERVISION**

### **University of Birmingham MSc Supervision**

2024-05 Florida Ferizolli (MSc in AI and Government) | Jiaqi Liu (MSc in AI and Sustainable Development,)

### **Course and Module**

2024 *University College Dublin* Quantitative Text Analysis (Led by Stefan Müller)

Guest Lecturer in Weeks on Word Embeddings and Transformers

### **Invited Talks**

2025 *Centre of Taiwan Studies, SOAS*

Taiwan's Electoral System & Legislative Behaviour

2025 *Taipei R LADIES*

Data Analysis and Applications with **legisTaiwan** and Taiwan Legislative Yuan API.

2024 *SPIRe PhD Workshop, University College Dublin*

Introduction to High-Performance Computing with SLURM

### **Teaching and Workshops**

2023 *GESIS Fall Seminar in Computational Social Science*

Instructor in Big Data and Computation for Social Data Science (Co-lecturing with Akitaka Matsuo)

2022 55<sup>th</sup> *Essex Summer School*

Teaching Assistant for Iulia Cioroianu — Course: Quantitative Text Analysis

Teaching Assistant for Akitaka Matsuo — Course: Introduction to Programming in Python

2021 54<sup>th</sup> *Essex Summer School*

Teaching Assistant for Johannes Karreth — Course: Introduction to Quantitative Methods in R  
**2021 EITM Europe Summer Institute**

Teaching Assistant for Ken Benoit and Nicole Baerg — Course: Quantitative Text Analysis  
**2020 53rd Essex Summer School**

Teaching Assistant for Iulia Cioroianu — Course: Quantitative Text Analysis  
**2020 ECPR Summer School**

Teaching Assistant for Akitaka Matsuo - Course: Machine Learning with Big Data for Social Scientists  
**2019 53rd Essex Summer School**

Teaching Assistant for Iulia Cioroianu — Course: Quantitative Text Analysis

## RESEARCH GRANTS & AWARD

**2025** APSA First Generation Scholars Travel Grant Award

**2023** The Scholarship for Attending Oxford Large Language Models for Social Science Workshop, £300

**2021–22** Taiwan Overseas Pioneers Grants of Ministry of Science and Technology Taiwan, USD\$32,000

**2022** University of Essex Departmental Fund for attending 2022 MPSA, £900

**2019** University of Essex Departmental Fund for attending 2019 EPSA, £450

**2018** Attendance Scholarships to Essex Summer School in Social Science Data Analysis, £250

**2017–21** The Government Doctoral Scholarship in Legislative Studies and Comparative Politics, Taiwan's Ministry of Education USD\$168,000

## JOURNAL REFEREE SERVICE

*European Journal of Political Research* x 2; *Political Science Review* x 3; *Political Science Research and Methods* x 3; *Journal of Taiwan Politics* x 1; *Legislative Studies Quarterly* x 3; *Government and Opposition* x 1

## CONFERENCES (\*: discussant; +: Poster)

**2025** PolMeth Europe (LSE) | PolMeth<sup>+</sup> (Emory) | APSA\* (Vacouver) | EPSA\* (Madrid)

**2024** COMPTTEXT (Amsterdam) | EPSA (Cologne) | APSA\* (Philadelphia)

**2023** EPSA (Glasgow) | APSA\* (LA) | ECPR SG Parliaments (Vienna)

**2022** ECPR (Innsbruck) | PolMeth<sup>+</sup> (WashU) | COMPTTEXT (Dublin)

**2021** MLSS<sup>+</sup> (NTU, Taiwan) | APSA (Online)

**2019** EPSA (Online) | Asian PolMeth<sup>+</sup> (Online)

**2018** EPSA (Belfast)

## REFERENCES

**Prof. Slava Jankin**  
Chair in Data Science and Government  
University of Birmingham  
📧 [sjankin.com](mailto:sjankin.com)

**Prof. Thomas Saalfeld**  
Chair of Comparative Politics  
University of Bamberg  
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**Prof. Stefan Müller**  
School of Politics and International Relations  
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📧 [muellerstefan.net](mailto:muellerstefan.net)

**Prof. Royce Carroll**  
Department of Political Science  
University of Houston  
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**Prof. Jonathan Sullivan**  
School of Politics and International Relations  
University of Nottingham  
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**Dr. Nicole Baerg**  
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