

# Yen-Chieh (David) Liao

Research Fellow at the Centre for Artificial Intelligence in Government

The School of Government in the University of Birmingham

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## ACADEMIC POSITIONS

### University of Birmingham

Research Fellow at the Centre for Artificial Intelligence in Government

Sep 2024 –

### 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 (with Research Programme)

Oct 2017 – Jan 2023

### National Taipei University

MA in Public Administration and Policy

Sept 2010 – Feb 2014

BA in Public Administration and Policy

Jun 2005 – Aug 2010

## RESEARCH

### Publications

**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>]

**2024** (Mis)perception of Party-voter Congruence and Satisfaction with Democracy. (with Li Tang and Royce Carroll) *Political Science Research and Methods* [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. *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Estimating Factions of Red Guard under Mao's China: A Slogan-based Text Scaling Method with Historical Documents.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)

Electoral Reform and Geographically-Targeted Oversight: Evidence from Taiwan Legislative Yuan. (with Li Tang)

### Working Papers

Selecting and Validating Classifiers for Multilingual and Cross-Domain Stance Detection. (with Stefan Müller)

How Electoral Rules Shape Legislative Oversight: Evidence from Taiwan's Ministerial Interpellation. (with Yu-Ceng Liao and Yi-ting Wang)

## ACADEMIC TRAINING

**2024** *ARCHER2 Message Passing Programming with MPI*, EPCC (Edinburgh Parallel Computing Centre) | *Introduction to High Performance Computing (SLURM)*, BlueBEAR (Birmingham Environment for Academic Research)

**2023** *Oxford Large Language Models for Social Science Workshop*; *57th Essex Summer School in Social Science Data Analysis*, Advanced Survey Data Analysis and Survey Experiments

**2022** *56th Essex Summer School in Social Science in Data Analysis*, Introduction to Social Network Analysis

**2021** *Machine Learning Summer School*, Standard Training Programme; *55th Essex Summer School in Data Analysis*, Advanced Methods for Text-as-Data: Natural Language Processing | Quantitative Methods for Causal Inference and Policy Evaluation

**2019** *54th Essex Summer School in Social Science in Data Analysis*, Introduction to Bayesian Analysis for the Social Sciences

**2018** *53rd Essex Summer School in Data Analysis*, Ideal Point Estimation and Scaling Methods | Generalized Linear Models

## MAINTAINER OF OPEN-SOURCE TOOLKIT

**flaiR**: An R wrapper for accessing the Flair NLP library in Python. Flair NLP facilitates easy experimentation with state-of-the-art model configurations, such as BERT, ELMo, RoBERTa, and others hosted on Hugging Face (with [Stefan Müller](#) and [The Connected\\_Politics](#)).

**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, 2nd Edition’ and Streamlining Estimation Scaling and Visualization with ggplot2 (with Dave Armstrong, Royce Carroll, Christopher Hare, Ryan Bakker, Keith Poole and Howard Rosenthal).

## TEACHING

### Course and Module

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

Guest Lecturer in Weeks on Word Embeddings and Transformers

### Workshops and Seminars

**2024** *SPIRe PhD Workshop University College Dublin* Basic Application of High-Performance Computing

**2023** *GESIS Fall Seminar in Computational Social Science*

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

**2022** *55th Essex Summer School in Social Science Data Analysis*

Teaching Assistant in Quantitative Text Analysis

Teaching Assistant in Introduction to Programming in Python for Social Scientists

**2021** *54th Essex Summer School in Social Science Data Analysis*

Teaching Assistant in Introduction to Quantitative Methods in R

**2021** *EITM Europe Summer Institute*

Teaching Assistant in Quantitative Text Analysis Using R and Linking Theory with Text as Data

**2020** *53rd Essex Summer School in Social Science Data Analysis*

Teaching Assistant in Introduction to Quantitative Text Analysis

**2020** *ECPR Summer School*

Teaching Assistant in Machine Learning with Big Data for Social Scientists

**2019** *53rd Essex Summer School in Social Science Data Analysis*

Teaching Assistant in Introduction to Quantitative Text Analysis

## RESEARCH GRANTS & FUNDING

- 2023** The Scholarship for Attending Oxford Large Language Models for Social Science Workshop (£300)
- 2022** University of Essex Departmental Fund (£900) and Travel Grant from Taiwan's Council of Indigenous Peoples for attending 2022 MPSA Conference (USD\$678)
- 2019** University of Essex Departmental Fund (£450) and Travel Grant from Taiwan's Council of Indigenous Peoples (USD\$630) for attending 2019 EPSA Conference
- 2018** Attendance Scholarships (£250) to Essex Summer School in Social Science Data Analysis
- 2021–2022** Taiwan Overseas Pioneers Grants of Ministry of Science and Technology Taiwan (Aug 2021 - Jul 2022), USD\$32,000
- 2017–2021** The Government Doctoral Scholarship in Legislative Studies and Comparative Politics, Ministry of Education Taiwan (Aug 2017- Jul 2021), USD\$168,000

## PRESENTATION (\*: discussant ; +:poster)

- 2025** PolMeth Europe, London; 75th Annual ICA Conference, Denver, USA.
- 2024** COMPTTEXT Conference, Amsterdam; Annual Conference of the European Political Science Association, Cologne; Annual Conference of American Political Science Association, Philadelphia
- 2024** COMPTTEXT Conference, Amsterdam; Annual Conference of the European Political Science Association, Cologne; Annual Conference of American Political Science Association, Philadelphia
- 2023** Annual Conference of the European Political Science Association, Glasgow; Annual Conference of the American Political Science Association, LA\*; ECPR Standing Group on Parliaments, Vienna
- 2022** Annual Conference of European Consortium for Political Research, Innsbruck; PolMeth Summer Meeting, St. Louis USA<sup>+</sup>, COMPTTEXT Conference, Dublin
- 2022** Machine Learning Summer School, Taiwan<sup>+</sup>; Annual Conference of American Political Science Association, Online
- 2019** Annual Conference of the European Political Science Association, Online; Asian PolMeth, Online
- 2018** Annual Conference of the European Political Science Association, Belfast

## COMPUTING SKILLS

**Programming** : R, Python | **Database** : SQL, MongoDB | **HPCs** : SLURM, PBS | **DevOps**: Docker

## REFERENCE

**Dr Stefan Müller** (Postdoc PI)

Associate Professor in the School of Politics and International Relations, University College Dublin

**Dr Thomas Saalfeld** (Predoc PI)

Chair of Comparative Politics, University of Bamberg

**Dr Royce Carroll** (PhD Supervisor)

Professor in the Department of Government, University of Essex

**Dr Nicole Baerg** (PhD Supervisor)

Senior Lecturer in the Department of Government, University of Essex

**Dr Jonathan Sullivan** (PhD External Examiner)

Associate Professor in the School of Politics and International Relations, University of Nottingham