

# David, Yen-Chieh Liao

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## RESEARCH INTEREST

distributive politics, legislative politics, quantitative study of ideology and political attitudes, computational social science.

## EDUCATION

### University of Essex, UK

PhD Candidate, The Department of Government Oct 2018 –

MPhil/PhD student, The Department of Government Oct 2017 – Dec 2018

### National Taipei University, Taiwan

MA, The Department of Public Administration and Policy Sep 2010 – Feb 2014

BA, The Department of Public Administration and Policy Jun 2005 – Aug 2010

## RESEARCH

### Work in Progress

“Electoral Incentives and Pork: Exploring Parliamentary Questions Using Convolutional Neural Networks” (Scheduled to present in the poster session at 2021 Machine Learning Summer School and 2021 Latin America PolMeth V in Mexico)

“Income Inequality, Party Misperception and Democracy Distrust”. with Royce Carroll (University of Essex), Li Tang (University of Birmingham), Tzu-Ping Liu (University of Taipei)

“Estimating Fiscal Policy Objectives in the UK with Text Analysis”. with Li Tang (University of Birmingham) and Pei Kuang (University of Birmingham)

“Measuring Political Elite from the Cultural Revolution: The Application of Self-Supervised Learning”. with Yi-Nung Tsai (National Chengchi University) and Jou Fei Huang (University at Buffalo, SUNY)

### Working Papers

“Factionalism and the Red Guards under Mao’s China: Ideal Point Estimation Using Text Data.” with Yi-Nung Tsai (National Chengchi University), Dechun Zhang (Leiden University) (presented in 2021 AsianPolmeth Presentation VIII; 2021 EPSA) 📄

“Electoral Reform and Disunited Polarization: Evidence from Legislative Roll Calls.” with Li Tang (University of Birmingham) (presented in 2020 APSA) 📄

“Mayors and Pork Barrel: Legislative Experience Bias in Intergovernmental Transfers to Taiwan Municipalities.” (presented in 2019 EPSA) 📄

## EXPERIENCE

### Teaching Assistant

Teaching Assistant to Dr Johannes Karreth (Ursinus College) 2L Introduction to Quantitative Methods in R, 54<sup>th</sup> Essex Summer School in Social Science Data Analysis, July 26 – August 6 2021

Teaching Assistant to Dr Ken Benoit (LSE) Quantitative Text Analysis Using R and Nicole Baerg (University of Essex) Linking Theory with Text as Data, *Empirical Implications of Theoretical Models Europe (EITM Europe)*, Jun 14 - Jun 25 2021

Teaching Assistant to Dr Akitaka Matsuo (University of Essex), VB21 - Machine Learning with Big Data for Social Scientists, 15<sup>th</sup> *ECPR Summer School in Methods and Techniques*, Aug 10 - 14 2020

Teaching Assistant to Dr Royce Carroll, 3L Scaling Methods for Social Science: Measuring Patterns and Preferences in Surveys and Behavior, 53<sup>rd</sup> *Essex Summer School in Social Science Data Analysis*, Aug 10 - 21 2020

Teaching Assistant to Dr Iulia Cioroianu (University of Bath), 1B Introduction to Quantitative Text Analysis, 53<sup>rd</sup> *Essex Summer School in Social Science Data Analysis*, Jul 13 - 24 2020

Teaching Assistant to Dr Raymond Hick (Columbia University), 1B Introduction to Quantitative Text Analysis, 52<sup>nd</sup> *Essex Summer School in Social Science Data Analysis*, Jul 13 - 24 2019

### **Research Assistant**

Graduate Research Assistant to Dr Royce Carroll, University of Essex, Jun 2019 – Oct 2019

Senior Research Assistant to Dr. Wu, Chung-li, Institute of Political Science, Academia Sinica, Feb 2014 – Jul 2017

Graduate Research Assistant to Dr. Luor, Ching-Jyuhn, Department of Public Administration and Policy, National Taipei University in Taiwan, Jul 2010 - Jan 2014

## **ADDITIONAL TRAINING**

2021 Standard Student Program, *Machine Learning Summer Schools (Taipei)*, August 2 - August 20, 2021

2021 Quantitative Methods for Causal Inference and Policy Evaluation (taught by Dr Adam Zelizer), *Essex Summer School in Social Science Data Analysis*, 25th Jul - 6 Aug 2021

2021 Advanced Methods for Text-as-Data: Natural Language Processing (taught by Dr Burt Monroe), *Essex Summer School in Social Science Data Analysis*, 25th Jul - 6 Aug 2021

2020 Causal Inference and Experiments in the Social Sciences (taught by Dr Ryan T. Moore), *Essex Summer School in Social Science Data Analysis*, 27 Jul – 7 Aug 2020

2019 Introduction to Bayesian Analysis for the Social Sciences (taught by Dr Ryan Bakker), *Essex Summer School in Social Science Data Analysis*, 22 Jul – 4 Aug 2019

2018 Ideal Point Estimation and Scaling Methods (taught by Dr Royce Carroll), *Essex Summer School in Social Science Data Analysis*, 6 - 17 Aug 2018

2018 Generalized Linear Models (taught by Dr Patrick Shea), *Essex Summer School in Social Science Data Analysis*, 22 Jul - 2 Aug 2018

## **SKILLS**

**Programmings** R, Python (working knowledge of natural language processing and machine, machine learning and deep learning in Tensorflow)

**Database** MySQL & MySQLWorkbench

**Editing** L<sup>A</sup>T<sub>E</sub>X, HTML & CSS (working knowledge in web editing and webscraping), Hugo

**High Performance Computing** AWS, CERES (HPC, University of Essex)

## SERVICES TO ACADEMIC ACTIVITIES

### Manuscript Referee

Political Studies Review

### Membership

2019 EPSA; 2020 MPSA; 2020 APSA; 2021 EPSA

### Seminar Organiser

Co-organizer for POPE Research Group (Public Opinion, Parties and Elections) for early career researchers at Department of Government, the University of Essex, Oct 2019 - May 2020.

Co-organizer for HEROES (Helping Each-other Research On Empirical Subjects) / PhD Colloquium at Department of Government, the University of Essex, Oct 2018 - May 2019.

## GRANTS

Awarded 2021 Taiwanese Overseas Pioneers Grants (**TOP Grants**), Taiwan's Ministry of Science & Technology (MOST) and The Science & Technology Policy Research and Information Center (STPI) of the National Applied Research Laboratories of Taiwan (August 2021- July 2022) (USD\$32,000)

Received 2019 Department Fund (£450) and Travel Grant from Taiwan's Council of Indigenous Peoples for attending 2019 EPSA Conference (USD\$630)

Received The 2018 Attendance Scholarships (£250) to Essex Summer School in Social Science Data Analysis

Awarded The Taiwan Government Scholarship to Study Abroad in the Field of Legislative Studies (August 2017- July 2021), USD\$168,000

## PACKAGES

**asmcjr** (with Dave Armstrong, Royce Carroll, Christopher Hare, Ryan Bakker, Keith Poole, Howard Rosenthal)

The `asmcjr` package supports the book "*2nd Analyzing Spatial Models of Choice and Judgment*", and streamlined functions for scaling and visualising estimates with `ggplot2`.

**legisTaiwan** (coming soon)

An R package for searching and retrieving the titles of budgets, the legislation, the speeches and legislator demographics from Taiwan Parliamentary Data Catalogs via Parliamentary Library API.

**legisCrawler** (with Calvin Yu-Ceng Liao)

An automation web crawling framework for retrieving parliamentary questions on The Website of Legislative Yuan (<https://lis.ly.gov.tw/>) based on Selenium & Scrapy in Python and Chrome browser.

## REFERENCE

**Dr Royce Carroll**, Professor in Department of Government, The University of Essex and Director of The Essex Summer School in Social Science Data Analysis.

**Dr Nicole Baerg**, Senior Lecturer (Associate Professor) in Department of Government, The University of Essex and Co-Director of The Essex Summer School in Social Science Data Analysis.

**Dr Chung-li Wu**, Research Fellow (Professor) and Director, Institute of Political Science, Academia Sinica, Taipei.

**Dr. Tamir Libel**, Senior Lecturer (Associate Professor) at the Swedish Defence University

**Dr Tzu-Ping Liu**, Assistant Professor, Department of Social and Public Affairs at The University of Taipei.