

Jacob Carlson

CONTACT INFORMATION	jacob.carlson.research@gmail.com https://jscarlson.github.io	
EDUCATION	Harvard University , Cambridge, Massachusetts Ph.D. Economics, August 2022 – Present Yale University , New Haven, Connecticut B.A. Statistics and Data Science, August 2016 – May 2020 B.A. Ethics, Politics, and Economics, August 2016 – May 2020 <i>Summa cum laude</i> with distinction in both subjects	
HONORS AND AWARDS	Presidential Scholar (Harvard University) Phi Beta Kappa (Yale University) Forethought Foundation for Global Priorities Research Undergraduate Thesis Prize Winner (2020) for undergraduate thesis titled “Culture and Growth: An Empirical Investigation”	
PEER-REVIEWED PUBLICATIONS	Shen, Zejiang, Ruochen Zhang, Melissa Dell, Benjamin Lee, Jacob Carlson , and Weining Li. “LayoutParser: A Unified Toolkit for Deep Learning Based Document Image Analysis.” In International Conference on Document Analysis and Recognition – ICDAR 2021 (pp. 131–146). Springer International Publishing, 2021. (Oral.)	
WORKING PAPERS	Carlson, Jacob , Trevor Incerti, and P. M. Aronow. “Dyadic Clustering in International Relations.” arXiv preprint arXiv:2109.03774 (2021).	
ACADEMIC RESEARCH EXPERIENCE	Harvard University , Cambridge, Massachusetts <i>Data Science Fellow in Deep Learning</i> September 2020 – May 2022 <ul style="list-style-type: none">Worked with Melissa Dell to develop deep learning methods and tools for social science data curation, e.g.,<ul style="list-style-type: none">Engineered and deployed a deep learning pipeline to convert tens of millions of document images into structured textBuilt information retrieval models trained for natural language understanding (NLU) to facilitate better ad hoc querying of large, unstructured text databasesDesigned and implemented sample efficient deep learning models for optical character recognition (OCR) predicated on recent insights in contrastive learning and metric learning University of Oxford , Oxford, United Kingdom <i>Future of Humanity Institute Summer Research Fellow</i> July 2020 – August 2020 <ul style="list-style-type: none">Pursued self-directed qualitative and quantitative research on the modern “AI research production function”Assembled a panel dataset on compute going towards AI research via automated extraction of hardware burden information from machine learning papers uploaded to arXiv.org Yale University , New Haven, Connecticut <i>James Tobin Research Assistant</i> September 2018 – May 2019 <i>Herb Scarf Research Assistant</i> June 2018 – August 2018 <ul style="list-style-type: none">Worked with Yusuke Narita on econometric analyses aimed at better understanding the effectiveness of “evidence-based” policies across the United States	

- Web-scraped data, cleaned data, estimated causal effects, and empirically assessed the robustness of identification assumptions to support an evaluation of Obama-era public policies that reached over 2,500 U.S. counties

Yale Law School, New Haven, Connecticut

Research Assistant

May 2017 – May 2019

- Collaborated with Kate Stith and a small team of law students on a quantitative research project investigating mandatory minimum sentencing trends across DOJ administrations
- Authored web-scraping and text analysis code that was used to assemble a novel database that tracked the filings of “section 851” sentencing enhancements in every U.S. district court over the past two decades

TEACHING
EXPERIENCE

Harvard University, Cambridge, Massachusetts

Unleashing Novel Data at Scale (ECON 2355)

- Sole teaching assistant for this graduate course in the department of economics instructed by Melissa Dell
- Received an average overall section leader rating of 5.00 (“excellent”) and a Harvard University Certificate of Distinction in Teaching
- Selected student comments: “Deeply knowledgeable and good at communicating complex technical concepts”; “Jacob is an incredible TF who was always accessible outside of class, eager to help, and very knowledgeable. One of the best I’ve had”

INDUSTRY
EXPERIENCE

Cornerstone Research, New York, New York

Summer Analyst

May 2019 – July 2019

- Performed financial and economic analyses for Fortune 500 clients undergoing complex commercial litigation
- Coded market simulations that were produced as evidence in court for a multi-million dollar class action lawsuit
- Evaluated and replicated conjoint analyses using national survey data

POLICY
EXPERIENCE

Office of U.S. Senator Richard Blumenthal, Hartford, Connecticut

Intern

June 2016 – July 2016

- Managed healthcare and immigration casework for about a half dozen residents of Connecticut
- Researched United States federal immigration law on behalf of assigned constituents

PRESENTATIONS

Allied Social Science Associations (ASSA) 2022 Virtual Annual Meeting

- Presented “LayoutParser: A Unified Toolkit for Deep Learning Based Document Image Analysis” at the “Nonstandard Data Sources” paper session on January 8, 2022

LEADERSHIP

Yale Policy Lab Working Group on Infrastructure Policy in Connecticut

Founder

September 2019 – May 2020

- Headed undergraduate policy research group with support from the Yale Institution for Social and Policy Studies
- Partnered with former Connecticut State Senator Alex Kasser to provide qualitative and quantitative insights into the likely impacts of her pending state infrastructure bank bill

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