

Kieran Douglas

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EDUCATION

University of California, Davis | MSc **2025-2026**

- Degree: Agricultural and Resource Economics
- Emphasis: Development Economics
- Location: Davis, California

University of Arizona | BA, Summa Cum Laude **2021-2025**

- Degree: Economics
- Minor: Population Health Data Science
- Location: Tucson, Arizona

RESEARCH EXPERIENCE

Student Researcher **August 2023 - Present**

University of Arizona — Applied International Development Economics (AIDE) Lab

- *Mining meaning: Conducting AI-assisted reviews of economic literature* - Co-authored a paper developing a novel pipeline for extracting non-binary metadata from academic texts. Applied this method to evaluate whether weather-based instrumental variables violate the exclusion restriction. This work contributes to early research on AI's impact on knowledge work and introduces a scalable approach to meta-research aimed at addressing the social science replication crisis.
- *Integrating Weather and Land Cover Data into Geospatial Impact Evaluations* - Contributed to a book chapter which provided resources to help guide researchers to thoughtfully use (and avoid misuse) of weather, vegetation, land cover, and extreme event data in the context of geospatial impact evaluation. Conducted an extensive literature review on specific use cases for remote sensing products.
- *Variable selection in economic applications of remotely sensed weather data: Evidence from the LSMS* - Contributed code and reviewed literature, exploring 174 papers to identify common rainfall metrics used as an instrument and show the extent of their ad hoc use in predicting a range of outcomes.
- *The Mismeasure of Weather: Using Remotely Sensed Earth Observation Data in Economic Context* - Prepared World Bank LSMS data for analysis by cleaning and managing variables.
- Internship: In 2023, worked in a student team on a replication and extension of Building Nations through Shared Experiences: Evidence from African Football. In 2024, served as lead undergraduate peer mentor in the student team working on the Mining Meaning project.

Undergraduate Research Intern **June 2024 – August 2025**

UROC-SRI Program and Equitable Agriculture and Environmental Management (EAEM) Program

- Contributed to the existing literature on the use of weather data as an instrumental variable, developed into the Mining Meaning project.
- Used fine-tuned large language models to process hundreds of academic papers and extract specific information.
- Wrote a comprehensive literature review that tied together critiques of instrumental variables regression and provided suggestions for methodological improvements to improve variable selection.

Equitable Agriculture and Environmental Management (EAEM) Program

- Attended a two-week bootcamp where I received training in Geographic Information Systems (GIS) and causal inference.
- Conducted a preliminary analysis, exploring the impact of environmental tax incentives on labor market outcomes in areas with relatively high pollution burden.

Independent Research

January 2025 - Present

Civicism

- Built an interactive civic engagement platform that maps users and elected officials into a shared ideological space, improving interpretability of congressional positioning and local ballot initiatives.
- Developed a high-dimensional framework for estimating ideology scores that extends beyond roll-call voting by incorporating comprehensive public records for each representative.
- Designed and implemented a dual-axis political preference tool that places users on the same ideological scale as elected officials.
- Developed a novel approach to analyzing local ballot initiatives using LLMs to generate “ideological fingerprints,” highlighting implicit policy implications for user comparison.

Immigration Enforcement, Labor Scarcity, and Mechanization in U.S. Agriculture (Thesis)

- I examine the effects of Secure Communities-induced deportation shocks on labor-replacing technology adoption in U.S. agriculture.
- Preliminary findings suggest that firms in SC-exposed counties maintain stable labor expenditures despite labor force reduction partly by increasing mechanization.

PUBLICATIONS AND PRESENTATIONS

Publications

- *Exploring Complications With Instrumental Variable Selection and Their Solutions*. (2024). Undergraduate Research Opportunities Consortium.

In Progress

- **K. Douglas**, J.D. Michler, A. Josephson. (2024). *Mining meaning: Conducting AI-assisted reviews of economic literature*.
- Agme, C.D., **K. Douglas**, J.D. Michler, A. Josephson. (2024). *Variable selection in economic applications of remotely sensed weather data: Evidence from the LSMS*.
- **K. Douglas** (2026). *Immigration Enforcement, Labor Scarcity, and Mechanization in U.S. Agriculture*

Presentations

- *Exploring Complications With Instrumental Variable Selection and Their Solutions* at the Undergraduate Research Opportunities Consortium Summer Colloquium, University of Arizona, Tucson, AZ, August 7, 2024.
- Poster Presentation of *Exploring Complications With Instrumental Variable Selection and Their Solutions* at the Undergraduate Research Opportunities Consortium Poster Session, University of Arizona, Tucson, AZ, August 10, 2024.
- *Ambient Air Pollution Concentrations and Poverty in American Cities*, EAEM University of California Santa Barbara, Santa Barbara, CA, August 20, 2024.
- *Mining Meaning: Conducting AI-Assisted Reviews of Economic Literature* at the VIP and CURES poster/presentation session, University of Arizona, Tucson, AZ, April 24, 2025.
- *Mining Meaning: Conducting AI-Assisted Reviews of Economic Literature* at the Berkeley Initiative for Transparency in the Social Sciences (BITSS) annual meeting, University of California, Berkeley, Berkeley, CA, April 16, 2026.

- *Immigration Enforcement, Labor Scarcity, and Mechanization in U.S. Agriculture* at the Berkeley Initiative for Transparency in the Social Sciences (BITSS) RT2 Workshop, University of California, Berkeley, Berkeley, CA, May 19, 2026.

HONORS, AWARDS, AND DISTINCTIONS

Wildcat Recognition Tuition Award, University of Arizona	2021–2025
Undergraduate Research Opportunities Consortium SRI Program	2024
Dean’s List with Distinction, University of Arizona	2021–2025
Graduated <i>summa cum laude</i> , University of Arizona	2025
First Place, Choice Awards, UA Vertically Integrated Projects Session	2025
Non-Residential Supplemental Tuition Fellowship, University of California, Davis	2025–2026
BITSS RT2 Program Funding, University of California, Berkeley	2026
Giannini Foundation Mini-Grant	\$35,000, 2026–2027

PROFESSIONAL EXPERIENCE

Research Assistant August 2023 – Present

University of Arizona — Applied International Development Economics (AIDE) Lab

- Co-authored two academic papers related to rainfall metric selection for IV regression.
- Cleaned and wrote executable code files along with replication package development.
- Created a proof-of-concept for the utilization of large language models as part of the data collection and literature review process.
- Conducted and published a replication of a study that looked to quantify the extent to which large scale community events (soccer games) impacted reductions in inter-ethnic violence in Africa.
- Received intensive training in GIS methods and Econometrics through the USDA-funded Equitable Agriculture and Environmental Management Program in Santa Barbara.

Teaching Assistant/Reader August 2025 – Present

University of California, Davis — Agricultural and Resource Economics

- Worked as a teaching assistant/reader for undergraduate economics courses at UC Davis.
- Assisted professors with grading, proctored exams, and supported students as they navigated a new subject.

Private Tutor August 2025 – Present

Self Employed

- Worked as a private tutor for students taking Advanced Placement and undergraduate-level microeconomics courses.
- Created a personalized curriculum for students to supplement their coursework.

Barista August 2016 – July 2025

Caffe Luce, Ren Coffeehouse, Epic Cafe — Tucson, Arizona

- Worked as a barista and cashier, serving high volumes of customers.
- Developed strong relationships with coworkers and customers.
- Supported the construction of a new menu and re-branding post pandemic shutdown.
- Trained multiple new employees on job requirements and best practices.