Kieran Douglas

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[GitHub](#) | [LinkedIn](#) | [Substack](#)

Education

Masters of Science, Agricultural and Resource Economics
Emphasis on Development and Environmental Economics
University of California, Davis - Davis, California
Graduation: 2026 (in progress)

Bachelor of Arts, Economics, *Summa Cum Laude*
Minor in Population Health Data Science
The University of Arizona - Tucson, Arizona
Graduation: July 2025
GPA: 3.91

Research Experience

Undergraduate Research Assistant | Applied International Development Economics (AIDE) Lab | August 2023 – *Present*

- *[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 using Stata and GitHub for version control.
- 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.
- *Mining meaning: Conducting AI-assisted reviews of economic literature* - Co-authored a paper which exploits machine learning natural language processing techniques to aid in large scale meta-analysis, literature review, and data collection, specifically as it related to exploring the validity and interchangeability of rainfall metrics used in instrumental variables regression. The paper contributes to a broader interest in an early exploration of the potential effects of AI on labor markets.
- *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.

Undergraduate Research Assistant | Student Researcher Equitable Agriculture and Environmental Management (EAEM) Program | August 2024 - *Present*

- Attended a two-week bootcamp where I received training in Geographic Information Systems (GIS), R for Econometrics, causal inference, and statistical analysis.

- Engaged in a cohort-based mentoring program, developing skills for graduate school and for work in applied economics and/or geography.

- Conducted a preliminary analysis, exploring the impact of environmental tax incentives on labor market outcomes in areas with relatively high pollution burden.

Undergraduate Research Assistant | UROC-SRI Program | June 2024 – August 2024

- Contributed to the existing literature on the use of weather data as an instrumental variable, developed into the Mining Meaning project.
- Developed a fine tuned large language model 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.

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.

Presentations:
- Presented *Exploring Complications With Instrumental Variable Selection and Their Solutions* at the Undergraduate Research Opportunities Consortium Summer Colloquia, University of Arizona, Tucson, Arizona, 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, Arizona, August 10, 2024
- Research Presentation on Ambient Air Pollution Concentrations and Poverty in American Cities, EAEM University of California Santa Barbara, Santa Barbara, CA, August 20, 2024
- Presented *Mining Meaning: Conducting AI-Assisted Reviews of Economic Literature* at the VIP and CURES poster/presentation session, University of Arizona, Tucson, Arizona, April 24, 2025

Professional Experience

Undergraduate Research Assistant | Applied International Development Economics (AIDE) Lab | University of Arizona - Tucson, Arizona | August 2023 - Present

- Co-authored two academic papers related to rainfall metric selection for IV regression

- Worked on a variety of projects in the field of Development Economics
- Cleaned and wrote executable code files
- Contributed to the publication of a Master's thesis by writing replicable code for data collection
- 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

- Supported fellow researchers with troubleshooting tech problems

Barista | Caffe Luce - Tucson, Arizona, August 2022 – 2025

- Worked as a barista and cashier, serving high volumes of customers.
- Aided in the rejuvenation of the café's downtown location.
- Developed strong relationships with coworkers and customers.

- Trained multiple new employees on job requirements and best practices

Barista and Line Cook | Cafe Maggie - Tucson, Arizona, July 2020 - August 2022

- Worked as a barista and line cook.
- Supported the construction of a new menu and rebranding post pandemic shutdown.
- Dealt with a high volume of food and coffee orders.

Barista **and Cashier** | Ren Coffeehouse - Tucson, Arizona, August 2017 – January 2020

- Worked as a barista and cashier.
- Developed strong relationships with coworkers and customers.
- Became accustomed to the fast-paced environment, supporting a high volume of customers.

Honors, Awards, and Distinctions

- Wildcat Recognition Tuition Award, University of Arizona – 2021, 2022, 2023, 2024, 2025
- Undergraduate Research Opportunities Consortium SRI Program – 2024
- Dean's List with Distinction, University of Arizona - 2021, 2022, 2023, 2024, 2025

- Summa Cum Laude upon graduation (GPA$\geq$3.9) - 2025

- Placed 1st in Peoples Choice Awards at the Vertically Integrated Projects and Course-Based Research Experience Poster/Presentation session - 2025

- Non-Residential Supplemental Tuition Fellowship, University of California, Davis - 2025, 2026

References

Anna Josephson, PhD
Associate Professor
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Associate Professor
University of Arizona, Tucson, AZ
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Kathy Baylis, PhD
Professor
University of California Santa Barbara, Santa Barbara, CA
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Antonio Rubio, PhD
Assistant Professor of Practice
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Epidemiology and Biostatistics
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