

PROFILE

AI/data science research leader and Assistant Professor with a Harvard Ph.D. and A.M. in Statistics, building applied ML systems for causal inference, policy evaluation, global development, health, and more. Known for translating frontier methods—LLM evaluation and debiasing, earth-observation computer vision, treatment-effect heterogeneity, record linkage, and measurement error—into peer-reviewed systems, reusable software, public data assets, funded collaborations. Co-directs the AI & Global Development Lab working across universities, institutes, and grant-funded teams to move rigorous AI from methods research into high-stakes decision contexts.

CORE LEADERSHIP COMPETENCIES

|                               |                                     |                                |
|-------------------------------|-------------------------------------|--------------------------------|
| AI/Data Science Strategy      | Applied ML Research Leadership      | Causal Inference & Experiments |
| LLM Evaluation & Debiasing    | Computer Vision / Earth Observation | Policy & Program Evaluation    |
| Open-Source Software          | Large-Scale Data Systems            | Research Grants & Partnerships |
| Measurement Error & Debiasing | Technical Mentorship                | Reproducible AI/Data Pipelines |

SELECTED CAREER HIGHLIGHTS

- **Built a cross-domain AI portfolio:** 16 peer-reviewed journal/conference publications across venues including *ICML*, *AAAI*, *EMNLP*, *ACL Findings*, *CLear/PMLR*, *World Development*, *APSR*, *Political Analysis*, and *SoftwareX*.
- **Funded AI-for-impact research:** Co-PI on more than \$900K in major awards from the Swedish National Space Agency and Resnick Sustainability Institute for AI/earth-observation poverty measurement and national-scale ecosystem valuation.
- **Scaled reusable research infrastructure:** Released six R packages across CRAN/GitHub and many public data assets, spanning causal inference with images, fast rerandomization, measurement-error correction, record linkage, descriptive representation.
- **Established technical credibility:** Co-inventor on granted U.S. patent US20190377784A1 for automated nonparametric content analysis; ICML Top 10% Reviewer; contributor to a collaborative initiative recognized among the Royal Swedish Academy of Engineering Sciences’ Top 100 societal-impact research initiatives.

PROFESSIONAL EXPERIENCE

THE UNIVERSITY OF TEXAS AT AUSTIN, Austin, TX

2022–present

- Assistant Professor, Department of Government; Co-Director, AI & Global Development Lab (2023–present)
- Lead applied AI/data science research at the intersection of causal inference, ML, and policy evaluation, with emphasis on LLM evaluation, earth-observation computer vision, treatment-effect heterogeneity, and large-scale data linkage.
  - Co-direct an interdisciplinary lab building AI and causal systems for global development and policy analytics; translate methods into software, benchmarks, public datasets, invited talks, and peer-reviewed outputs.
  - Co-PI on Swedish National Space Agency funding (USD \$696,626, 2025–2028) for comparing earth observation and AI methods for poverty measurement toward sustainable development.
  - Co-PI on a \$230,000 Resnick Sustainability Institute Impact Grant for new tools estimating location-specific ecosystem values at national scale to inform sustainable management.
  - Mentor or advise 3 doctoral and 6 master’s researchers and design/teach ML, big data, statistics, and AI/programming curricula for graduate and undergraduate audiences.

INSTITUTE FOR HEALTH METRICS & EVALUATION, UNIVERSITY OF WASHINGTON

2022–present

- Consultant & Affiliate Researcher
- Develop scalable AI systems supporting population health modeling, decision-focused analytics in interdisciplinary research teams.

SELECTED PRIOR APPOINTMENTS

2017–2024

- Harvard University; Linköping University; Adobe Research
- **Harvard University** – Visiting Assistant Professor, Department of Government, and Faculty Affiliate, Institute for Quantitative Social Science (2024); taught graduate *Introduction to Machine Learning* and undergraduate *Making Big Data*.
  - **Linköping University / AI & Global Development Lab** – Postdoctoral Researcher (2021–2022); co-developed the Planetary Causal Inference program integrating earth observation, AI systems, and causal designs for data-scarce policy evaluation.
  - **Adobe Research** – Research Intern, San Jose, California (2017); prototyped causal inference and machine learning methods in an industrial research setting; internship advisor: Nikos Vlassis.

EDUCATION & SELECTED CREDENTIALS

- Harvard University** – Ph.D., Government (2021); A.M., Statistics (2020); Carl J. Friedrich Fellow.
- Oberlin College** – B.A., History, High Honors; GPA 3.96/4.00; Phi Beta Kappa.
- Selected recognition/service** – Honorable Mention, Tom Ten Have Award, Society for Causal Inference (2023); AAAI-26 Program Committee, Main Technical and Social Impact tracks; NSF proposal review panel.

SELECTED TECHNICAL, PUBLICATION & SOFTWARE

- Books/monographs:** Two Cambridge University Press books under contract, including *Planetary Causal Inference: Understanding the Environment, Society, and Economy through Earth Observation and AI Systems*.
- Research:** Selected work in image-based treatment-effect heterogeneity, debiasing ML predictions for causal inference, LLM-based parameter estimates, multimodal LLM computation, organization-scale record linkage, and accelerated experiment design.
- Software/data:** Six R packages across CRAN/GitHub (*fastrerandomize*, *causalimages*, *LinkOrgs*, *readme2*); many public datasets.