Ashruta Acharya

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Economics Ph.D. candidate specializing in applied microeconomics, observational causal inference, and large-scale data analysis. Builds original datasets and uses Python, R, and Stata to study market integration and employment. Seeking economist and quantitative research roles in industry, bringing empirical research and economic reasoning to business questions.

Education

George Mason University - Ph.D. in Economics Expected May 2027

Dissertation committee: Mark Koyama (Advisor), Alex Tabarrok, Tyler Cowen, Vincent Geloso.

Fields: Institutions & Development; Economic History; Industrial Organization

Wichita State University - M.A. in Applied Economics May 2021

Wichita State University - B.B.A. in Economics May 2019

Technical Skills

Quantitative methods: Applied econometrics, treatment-effect estimation, staggered difference-in-differences, event studies, panel-data analysis, heterogeneous effects, robustness and sensitivity analysis.

Software: Python, R, Stata, SQL (working knowledge), ArcGIS Pro, QGIS, Git/GitHub, Excel, LaTeX.

Selected Python libraries: pandas, NumPy; statsmodels, SciPy, differences (DiD); GeoPandas, Shapely, NetworkX, Rasterio; Matplotlib, PyArrow.

Data & spatial analysis: Large-scale geospatial data, data integration and validation, spatial joins, boundary harmonization, network accessibility, reproducible analysis, and visualization.

Text analysis: Natural language processing (NLP) and text-as-data; AI-assisted extraction and organization of legal and historical documents.

Research Experience

Ph.D. Fellow & Research Assistant Aug 2021 - Present

George Mason University *Fairfax, VA*

- Designed quasi-experimental studies of employment responses to new road connections using Callaway-Sant'Anna staggered difference-in-differences and event studies.
- Reduced runtime from over 30 hours to about two hours in an earlier market-access application, using reusable Python scripts to analyze four raster layers with nearly 60 million cells each.
- Enabled comparisons over four decades by building an original panel of 74 Nepali districts, 1971-2011, linking transport networks and census data with reconciled definitions and boundaries.
- Evaluated identification assumptions, pre-trends, and sensitivity to alternative samples and model specifications to assess the credibility of estimated effects.
- Documented a roughly 40% decline in the standard deviation of log market access, 1971-2011, by constructing measures from transport costs while holding destination populations fixed.
- Organized unstructured text into research data using AI-assisted NLP prototypes to extract people, places, and institutions from 165 legal articles and over 4,000 archival pages.
- Designed a study of how tax changes affect cross-border trade, using product-level data, exposure-based difference-in-differences, and event studies.

Job market paper: *Roads, State Integration, and Uneven Development in Modern Nepal.*

Additional Analytical Experience

Research Intern, Center for Economic Policy Feb-Aug 2021

Institute for Integrated Development Studies *Kathmandu, Nepal*

- Analyzed product mix, trading-partner concentration, and changes in bilateral trade using HS4-level BACI data for 1998-2018.

- Co-authored Trade Flow Patterns in Nepal; presented findings through maps, figures, and written summaries for an IFPRI-related report.

Graduate Research Assistant Jun 2019 - May 2021

Institute for the Study of Economic Growth, Wichita State University

- Identified 11 Kansas industries with both wage and employment gains through analysis of 2014-2018 QCEW data, benchmarking industry trends against the U.S.
- Collaborated with faculty to explain industry-level wage and employment trends in research memoranda.

Publications

Acharya, A., Geloso, V., & Psurek, A. (2026). *The Hole in the Doughnut: Formalizing and Testing a Key Model of Degrowth.* Contemporary Economic Policy.

Neopane, A., Nepal, B., & Acharya, A. (2021). *Trade Flow Patterns in Nepal.* Feed the Future (USAID), Research Paper 7.

Teaching & Leadership

Graduate Lecturer May 2023 - Present

Department of Economics, George Mason University *Fairfax, VA*

- Explained economic models and empirical evidence to classes of 20-35 students with varied quantitative preparation; designed courses, applied econometrics exercises, and assessments.
- Undergraduate courses: Economics of Developing Areas, Economic History, Intermediate Macroeconomics, Money & Banking, and Economics for the Citizen.

Founding President Jun 2020 - Dec 2021

Society of Nepali Women in Economics (SONWE) *Kathmandu, Nepal*

- Founded a network of 10+ emerging economists and organized Women in Nepali Economic Growth, coordinating mentorship, speakers, and public programming.

Selected Fellowships & Training

Price Theory Summer Camp, Becker Friedman Institute, University of Chicago	June 2026
Public Choice Fellowship ($20,000 research support)	May-Dec 2026
Graduate Fellow, American Institute for Economic Research	Feb-Apr 2024
Mercatus Center Doctoral Fellowship ($160,000 four-year award)	2021-2025

Languages

English (fluent), Nepali (native), Hindi (fluent), Korean (intermediate).