Feda Mohammadi

Berea, KY | 859-972-5121 | mohammdif@berea.edu | GitHub | LinkedIn | Website

Education

Berea College – *Berea, KY* *Expected: May 2027*

B.S. Quantitative Economics & B.A. Mathematics, Minor: Computer Science | GPA: 3.84

Honors: Dean's List (All semesters), Tuition Promise Scholarship ($200,000), *The 2024 Diana Award*, Stanford Engineering Research Introductions (SERIS) Scholar'25, Ernest and Emily G. Graham Volunteer Service Award'24

Leadership: Berea Economics & Data Science Association - President (Sep 2025 - present), Berea College Motley Fool Investment Club Financial Analyst - Member (Jan 2024 - present)

Relevant Coursework: Data Structures and Algorithms, Software Design and Implementation, Applied Statistics, Econometrics I, Intermediate Microeconomics & Macroeconomics, Time Series Econometrics, Calculus I, Game Theory

Experience

Economics Teaching Assistant - Economics & Business Department – *Berea College* *Jan 2025 - Present*

- Mentored 30+ students during the lab in economic modeling, applied statistics, micro and macroeconomics, econometrics, and offered individualized guidance on data cleaning, visualization, and model interpretation
- Assisted students in STATA and R for econometrics coursework involving applied regression, multivariable regressions, instrumental variables, and panel data methods
- Graded coding and analytical assignments and delivered clear, constructive feedback, while also tracking attendance and monitoring patterns of misunderstanding to inform the instructor

Research Intern - Data Science for the Public Good Program – *Virginia Tech* *May 2025 - Aug 2025*

- Analyzed 3M+ county-level observations to measure cost-of-living disparities across 133 Virginia counties, building a full cost-estimation framework combining price indices, wage data, and socioeconomic indicators using R and Census APIs
- Built and deployed an interactive RShiny dashboard (Leaflet, Plotly) to deliver real-time cost estimates by family structure, supporting evidence-based decision-making for the Virginia Cooperative Extension and local stakeholders
- Engineered and integrated multi-source datasets (housing, healthcare, transportation, wages), conducted statistical analysis on wage–cost gaps, and produced policy insights on regional affordability and financial stress patterns

Founder & President - Afghan Scholars Academy (ASA) – *Remote* *Feb 2024 - Present*

- Founded an international youth-led nonprofit organization, raising $10,000+ in direct student aid through fundraising campaigns, and helped 3,600+ students banned from education in Afghanistan get free education
- Organized college mentorship programs, language learning classes, leadership trainings, and helped 150 students secure fully funded scholarships in the United States, Canada, Germany, and Ireland
- Led grant writing, oversaw curriculum development, program design, and performance evaluation to expand student impact, and secured partnerships with international NGOs

Empirical Research Projects

Income and Well-Being in the U.S. – *Berea College* *Mar 2026*

- Built a county-level panel dataset (2011–2023) with 40k+ observations by integrating ACS, County Health Rankings, and IHME data; engineered variables including log income, inequality (Gini), and a composite well-being index (life expectancy, mental and physical health)
- Estimated two-way fixed effects models (county and year) with clustered standard errors in R (fixest), including interaction terms to identify heterogeneous effects across Appalachian and non-Appalachian regions
- Found that income has a significantly stronger positive effect on well-being in Appalachian counties, with weaker effects elsewhere, highlighting regional differences in marginal returns to income

MONEY OUT: The Driving Factors for Remittances – *Berea College* *Sep 2025*

- Built an econometric gravity model of U.S. remittance outflows to 97 countries using World Bank, UN, IMF, and Pew data, incorporating migrant stock, transaction costs, and macroeconomic variables
- Constructed and cleaned cross-country data in Stata; applied log transformations and share-based measures to address skewness and multicollinearity, and estimated multiple OLS specifications with diagnostic testing
- Found that migrant stock is the strongest predictor of remittances, transaction costs reduce flows by ~14%, and a higher female migrant share increases remittances, while macro variables add limited explanatory power

Research Presentations

- Virginia Tech Undergraduate Research Symposium *Aug 2025*
- Berea Undergraduate Research & Internship Symposium *Oct 2025*
- Kentucky Economics Association Annual Conference *Oct 2025*
- National Collegiate Research Conference, Harvard University *Jan 2026*

Skills

- **Languages & Tools:** R (tidyverse, dplyr, Shiny), Python, Stata, Excel, Tableau, LaTeX, SQL, Git/GitHub
- **Data & Modeling:** OLS regression, Fixed Effects Models, Difference-in-Differences, Robust SEs, Geospatial Data, Data Cleaning & Feature Engineering, Descriptive & Inferential Statistics, Visualization (ggplot2, matplotlib)
- **Professional Skills:** Research communication, Collaborative teamwork, Attention to detail, Policy analysis