



## EDUCATION

**American University**, Washington, DC  
Master of Science: Data Science, 2025

**Loyola University Maryland**, Baltimore, MD  
Bachelor of Arts: Quantitative Economics, 2020

**Montgomery Community College**, Rockville, MD  
Associates of Arts: General Studies, 2020

## EXPERTISE

- Implementing quality assurance systems for data collection and analysis
- Applying econometrics, statistical, and data science tools to analyze large datasets on a range of topics
- Experience assisting in impact evaluation and evidence synthesis
- Data Wrangling

## PROGRAMMING TOOLS

- STATA
- Tableau
- R Studio
- Excel
- Python
- ArcGIS
- SQL
- Git/Github

## PROFESIONAL AFFILIATIONS

- Society for International Development

## PROFESIONAL SUMMARY

Data Scientist passionate about sports analytics with experience building predictive models and interactive apps for player performance analysis. Skilled in R, Python, and statistical modeling. Developed a real-time soccer performance analytics app to support scouting and recruitment using API data and regression modeling.

## WORKS IN PROGRESS

### Credit Card Approval Prediction App | American University | 2025

Developed a machine learning app to predict credit card approval using applicant data (e.g., income, employment status, credit history). Built an end-to-end pipeline for data preprocessing, EDA, and training classification models including logistic regression, decision trees, random forests, and gradient boosting. Evaluated model performance through cross-validation, comparing MSE and test error rates to optimize predictive accuracy. Focused on class imbalance, model interpretability, and fairness across sensitive attributes. Explored ethical implications of automating financial decision-making.

## PROFESSIONAL EXPERIENCE

### Quantitative Research Assistant

American Institute of Research | July 2024 – Present | Washington, DC

- Assisted in designing quantitative research, training enumerators, and formulating policy recommendations
- Conducted exploratory data analysis, literature reviews, and contributed business development proposals
- Supported research design, including survey development, and data governance ensuring methodological rigor
- Developed scripts for web scraping and PDF extraction to automate keyword frequency analysis
- Drafted policy briefs and research reports, translating findings into actionable recommendations for educators and policymakers

### Research Assistant

KNG Health Consulting, LLC | April 2023 – July 2024 | North Bethesda, MD

- Generated County-level U.S. map indicating the reliance of Hospital Outpatient Departments among Medicare Beneficiaries for the American Hospital Association
- Conducted descriptive statistics to analyze utilization trends of CPT code 92523 (Evaluation of speech sound production with evaluation of language comprehension and expression).
- Drafted and revised project plans for new technology add-on payments projects and managed quality assurance process

## OTHER EXPERIENCE

### Professor Assistant

American University | Jan 2024 – Present | Washington, DC

- Supported students by clarifying complex statistical topics and problem-solving techniques.

### Research Assistant

Loyola University Maryland | August 2022 – December 2022 | Baltimore, MD

- Conducted a sentiment analysis on discrimination in the wealth management industry
- Built a logistic regression model to analyze how racial characteristics influence response rates in outreach or application data

### Intern

Library of Congress | May 2019 – August 2019 | Washington, DC

- Conducted research for the book "Flowers, Guns, and Money: Joel Robert Poinsett and the Paradoxes of American Patriotism" (published 2023) and assisted the author in delivering a final presentation to Kluge fellows

## **Networks of Influence and Support Between War and Peace | Research Implementation Policy Lab | 2025**

Designing and developing an interactive R Shiny web application to visualize international actor networks in fragile and conflict-affected states. The app enables users to toggle between datasets, countries, organization types, and sectors, revealing the structure and dynamics of peacebuilding networks across regions. Responsible for website development, data preprocessing, and network visualization using igraph, tidygraph, and visNetwork. This project explores how formal contracts, informal relationships, and coordination meetings between international, state, and non-state actors influence indicators of conflict and peace over time.

## **PROJECTS**

---

### **Player Performance Analysis App | American University | 2025**

Developed an interactive R Shiny app for soccer scouts, fans, and coaches to analyze soccer player performance through exploratory data analysis and statistical modeling. The app integrates API data to retrieve real-time player statistics allowing users to filter by key performance soccer indicators. It provides custom visualizations of key performance metrics and a regression model to estimate player salary, supporting data-driven recruitment decisions.

### **Citizens Math Evaluation, US Department of Education, AIR (Subcontractor under WestEd) (2025)**

Supported the evaluation of Citizen Math lessons in middle school math instruction. Evaluated Citizens Math lesson's impact on students' skills and perceptions of mathematics. Tracked participating schools and automated the extraction and processing of district administrative records. Developed custom scripts to efficiently extract, manipulate, and analyze student and teacher survey data from diverse formats, such as PDFs and complex tables. Kept project directors informed on work progress by regularly updating Airtable with project status, milestones, and key developments. Handled district coordinator communications, managed the project's email inbox, coordinated with school representatives, and conducted preliminary quality checks on incoming administrative data.

### **Strengthening Teacher Professional Development for Multilingual Foundational Learning at Scale in Cote d'Ivoire, Democratic Republic of Congo, and Senegal, IDRC, AIR Partnership with Dalberg (2025)**

Assisted senior researchers in conducting a school-level randomized controlled trial to assess the impact of FLIP programming. Contributed to designing quantitative research, including data collection through teacher surveys, student assessments, and classroom observations. Supported the analysis of teacher and student outcomes using OLS regression, incorporating covariates for precision. Supported power calculations, sample selection, and the adaptation of validated tools to measure educational outcomes in multilingual contexts. Drafted sections of the inception report, contributing to developing key project deliverables. Actively participated in meetings conducted in both English and French, ensuring effective communication and collaboration across multilingual teams.

### **Le Projet d'Appui à la Scolarisation des Filles Affectées par le Conflit (PASCOFI) au Mali, WUSC, AIR (2025)**

Assisted in assessing the feasibility and impact of cash transfers in education for the PASCOFI project in Mali. Designed household-level surveys to investigate the link between cash transfers and girls' attendance, retention, academic performance, and self-confidence. Assessed the operational effectiveness of the cash transfer program and formulated recommendations that can be implemented on an ongoing basis. Contributed to developing a proof of concept from an operational perspective, explicitly evaluating the viability of providing cash transfers in regions where the project operates. Additionally, supported the assessment of the contribution of cash transfers to girls' education, helping to establish evidence for its potential impact on educational outcomes in Mali.

### **Introduction to Quantile Regression | American University | Quantile Regression, OLS, Income Distribution**

Introduced quantile regression as an extension of OLS, highlighting its advantages using income data. Discussed how quantile regression captures a fuller picture of conditional distributions beyond the mean, making it a valuable tool for analyzing income disparities and other heterogeneous effects.

### **Promoting Autonomy for Literacy and Attentiveness through Market Alliances, Save the Children, AIR (2024)**

Contributed to a comprehensive mixed-methods evaluation to assess the effectiveness of the PALAM/A program in Sri Lanka. Supported the impact evaluation by analyzing quantitative instruments such as student literacy assessments, health and nutrition surveys, and school meal provider cost surveys. Quantified literacy and health outcomes change through a randomized controlled trial.

### **24/7 Access Makes the Difference: After-Hours Access to Emergency Departments is Critical in Supporting Patients and Communities, Coalition to Protect America's Health Care, KNG Health Consulting (2024)**

Measured the value of hospitals through the provision of specialized services. Compiled and cleaned Medicare data; conducted descriptive statistics to get the counts and distributions of various cohorts such as age, race, geographic location, emergency response center utilization, level of trauma team activated, and more; documented emergency department care services that could not be delivered elsewhere due to time and provider constraints; created infographics to visually display findings; conducted literature reviews; and drafted the final report. [For more info click here](#)

## PROJECTS

---

### **Economic Diversification's Impact on the Resource Curse Hypothesis within the Democratic Republic of Congo, American University (2024)**

Explored how economic complexity interacts with natural resources in the DRC's economy. Conducted a literature review to identify the research gaps. Developed a regression model that assessed the relationships between the economy, natural resources, and diversification of productive capabilities. Drafted a report and presented findings with policy recommendations.

### **Growth in Special Needs Plans Outpaces that of Medicare Advantage, Particularly in the South, KNG Health Consulting (2024)**

Analyzed enrollment and plan-level data for a policy brief at KNG Health Consulting on the rapid growth of Medicare Advantage Special Needs Plans (SNPs), highlighting enrollment trends and regional variation across the United States. Used national plan-level and beneficiary data to identify patterns such as above-average growth in states like Texas, Florida, and Pennsylvania. Cleaned and visualized data to illustrate year-over-year SNP enrollment increases exceeding 11% from 2022 to 2023. Drafted the published article and provided insights on the expansion of plans serving high-need populations, supporting strategic recommendations for healthcare payers.