

PROFESSIONAL SUMMARY

Policy & Computational Social Science Researcher specializing in quantitative research, program evaluation, and causal inference. Experienced in designing and executing end-to-end analytics projects using large-scale social, economic, and behavioral datasets. Skilled in machine learning, regression modeling, time series analysis, and panel data methods, with proven ability to translate complex analyses into actionable insights for policymakers and business leaders.

EDUCATION

COLUMBIA UNIVERSITY, School of International and Public Affairs (SIPA) New York, USA
Master of Public Policy & Administration, Data Science for Policy (*Program Evaluation*) May 2026
Relevant Coursework: Causal Inference, Applied Econometrics, Quantitative Methods for Program Evaluation and Policy Research, Time Series Analysis, Applied Machine Learning, Urban Economics, Social Welfare Policy

Relevant Research:

- **Housing Affordability and Homelessness in New York City:**
Designed a dynamic measurement framework to estimate the short- and long-term impact of housing cost shocks on homelessness outcomes using monthly administrative and housing market data. Applied Vector Autoregression (VAR) models to quantify temporal response patterns and lagged effects, translating impulse responses into decision-relevant metrics capturing the magnitude, timing, and persistence of effects.
- **Fertility Rate Predictive Modeling:**
Developed ARIMA-based forecasting models to project future fertility rates, with careful attention to trend, seasonality, and stationarity. Performed model selection and validation using AICc, residual diagnostics, and the Box–Ljung test to assess autocorrelation, ensuring robust and reliable long-horizon forecasts.

KING FAHD UNIVERSITY OF PETROLEUM & MINERALS, Engineering College Dhahran, Saudi Arabia
Bachelor of Science, Electrical Engineering (*Signal Processing & Artificial Intelligence Minors*) September 2021

PROFESSIONAL EXPERIENCE

INTERNATIONAL LABOUR ORGANIZATION (ILO) New York, USA
Graduate Researcher November 2025 - Present

- Conduct in-depth institutional and legal analysis of national forced labour frameworks, mapping enforcement structures, labour regulations, and governance mechanisms to contextualize empirical findings within political economy constraints.
- Translate ILO legal standards and statistical measurement frameworks into operational survey indicators, ensuring methodological alignment between international definitions and nationally representative microdata.
- Construct and validate a multidimensional forced labour risk index using ~70,000 individual-level observations, operationalizing coercion and involuntariness dimensions into measurable severity classifications.
- Design and implement econometric strategies to estimate associations between forced labour exposure and socioeconomic vulnerability factors, including informality, household economic stress, migration status, and schooling disruption.
- Develop reproducible data pipelines in R to clean, merge, and structure complex labor force survey datasets, enabling scalable and transparent analysis.
- Contribute to research briefs and technical documentation, translating statistical findings into policy-relevant insights.

COMMUNICATION, SPACE & TECHNOLOGY COMMISSION (CST) Riyadh, Saudi Arabia
Cloud Computing Development Specialist April 2023 - August 2024

- Designed and implemented a comprehensive assessment framework for 32 cloud service providers, and developed a performance index that informed \$30M in national investment policies, enhanced market transparency, and fostered competition by incentivizing providers to improve quality and efficiency.
- Built interactive dashboards for senior leadership to track cloud provider performance in real time, enabling faster, data-driven strategic decisions and reducing average decision-making time by 60%
- Produced analytical reports analyzing 1,200 organizations across 9 industries, identifying performance gaps and market demand trends to guide strategic growth and optimize investment decisions.
- Collaborated with policy, engineering, and investment teams to translate complex analyses into actionable strategies, driving 5 regulatory reforms in the national cloud regulatory framework.

DELOITTE**Business Analyst**

Riyadh, Saudi Arabia

April 2022 - April 2023

- Assessed a financial-sector client's digital infrastructure, mapping services across 230 systems through surveys and interviews to identify gaps, mitigate risks, and address regulatory violations.
- Developed predictive models to estimate workload and resource demand, improving infrastructure planning accuracy and reducing potential system bottlenecks.
- Designed a hosting and data management strategy ensuring regulatory compliance and customer data protection while optimizing system load, improving overall system reliability by 40% and critical system reliability by 100%.
- Conducted a current-state assessment of a government agency, mapping services and digital infrastructure across 11 sub-agencies, identifying inefficiencies and driving the integration of 66 systems, reducing operational costs by 20% and improving infrastructure investment efficiency.
- Presented analytical findings and risk evaluations to senior leadership, shaping digital transformation decisions and informing long-term implementation roadmaps.

SAUDI TELECOM COMPANY (STC)**Access & Transport Strategy Developer**

Riyadh, Saudi Arabia

December 2021 - April 2022

- Applied predictive and geospatial analysis to inform infrastructure investment decisions aligned with national connectivity and inclusion goals.
- Assessed regional disparities in service access to support equitable expansion planning.
- Developed data-driven insights report to support strategic planning and align infrastructure decisions with national objectives.

SAUDI ARAMCO**Control and Network Engineer**

Ras Tanura, Saudi Arabia

September 2021 - December 2021

- Supported the migration and modernization of mission-critical industrial control systems underpinning large-scale energy export operations, including SCADA, PLC, and DCS architectures.
- Coordinated with cross-functional engineering and safety teams to align control systems with reliability, cybersecurity, and operational governance standards.
- Gained hands-on exposure to industrial-scale compute, networking, and control environments, informing later work on digital infrastructure regulation and cloud/compute governance.

LEADERSHIP & ACTIVITIES**Program Assistant – Data Science For Policy Concentration at SIPA**

Sep 2025 - Present

- Coordinate academic programming, workshops, and events bridging data science and public policy.
- Collaborate with faculty, administrators, and students to improve program operations and enhance student engagement.
- Support curriculum development and resources to strengthen applied data science training for policy students.
- Led hands-on workshops mentoring students in Python and R programming, data manipulation, and applied analytics.

SKILLS

- Python
- R & R Markdown
- Stata
- SQL
- Tableau
- Figma
- Microsoft Office Suite (Excel, PowerPoint, Word)
- Arabic (Native), English (Fluent)