

# **Dr. Asif Rasool**

## **Research Economist/Scientist, Business Research Center, Southeastern Louisiana University**

(Work website: <https://www.southeastern.edu/employee/asif-rasool/>)

Dr. Asif Rasool is a Research Scientist at Southeastern Louisiana University's Business Research Center (BRC) whose work connects applied economics, data science, and artificial intelligence (AI). He works at the intersection of traditional econometric methods and advanced machine learning models. In addition to research projects at the BRC, he focuses on applying research findings and AI in ways that make them accessible to the public.

Dr. Rasool leads applied research at the BRC, where he has developed interactive, cloud-based tools for regional stakeholders and communities. In his recent projects, he has transformed traditional academic-style [economic impact studies](#) into reusable simulators, coupled with custom-built [AI agents](#), that enable stakeholders to conduct their own economic impact analyses. He also developed an economic research platform ([Lion-IDE](#)) powered by AI that allows students, researchers, and community members to perform independent economic analyses, eliminating the gap between domain experts and the general public. Dr. Rasool possesses multidisciplinary expertise that ranges from econometric modeling, causal inference, and predictive modeling, as well as methods drawn from computer science. He has written papers on causal inference and published [work](#) in the field of agriculture applying unsupervised learning methods. At the BRC, he has applied these approaches to build a state-of-the-art uplift model and a [platform](#) that enables users with non-technical backgrounds to harness the power of advanced modeling for small and medium-sized businesses in the region.

Dr. Rasool has also demonstrated expertise in deep learning. He developed an AI-powered plant disease classifier, [SmartField-LA](#), to identify strawberry diseases in Louisiana. The first phase of this project has been completed, and he is currently working on a grant proposal to support its implementation. In his previous position as a state economist at the New Mexico Taxation and Revenue Department, Dr. Rasool developed the state's first oil and gas and corporate income tax forecasting models. He is now building similar [models](#) for the state of Louisiana at the BRC.

## SUMMARY

Econometrician, Data Scientist, and Applied Economist with a Ph.D. in Quantitative Economics, specializing in econometrics, causal inference, and machine learning. Over 5 years of experience applying advanced economic and statistical methodologies to solve complex economic problems. Proficient in LangChains, TensorFlow, Keras, and Cerelium for AI applications. Experienced in predictive modeling using advanced machine learning techniques such as Clustering, Gradient Boosting, XGBoost, LSTM, Neural Networks, and Random Forests. Skilled in experimental design, data analysis, and integrating causal inference with machine learning.

## EDUCATION

### **M.Sc. in Computer Science (Online-Part-time)**

Georgia Tech Institute of Technology, Atlanta, GA

Specialization: Machine Learning, and Artificial Intelligence

Expected graduation: Spring 2027

### **Ph.D. in Quantitative Economics & Econometrics**

Pennsylvania State University, State College, PA

Specialization: Econometrics, Energy & Resource Economics, Industrial Organization

### **M.Sc. in Applied Economics**

Utah State University, Logan, UT

Specialization: Statistics and Econometrics

### **M.B.A. in Finance**

University of Dhaka, Institute of Business Administration, Dhaka, Bangladesh

### **B.B.A. in Finance, Accounting, and Economics**

North South University, Dhaka, Bangladesh

## TECHNICAL SKILLS

Advanced Econometrics & Causal Inference, Mixed methods, Forecasting, Economic Impact Analysis

Machine Learning, Deep Learning, and Predictive Modeling ([GitHub repository](#))

Experimental Design & A/B Testing, Classification, Regressions, Panel models, Time series,  
etc. Big Data Analysis & Visualization

Programming: Python, R, SQL, STATA, GAMS, Julia, IMPLAN

Libraries & Frameworks: Sklearn, TensorFlow, Keras, statsmodels, Seaborn, Matplotlib, Plotly

etc. AI & Cloud Platforms: n8n, Azure (Azure Machine Learning), AWS, Google Cloud

## **RECENT PROFESSIONAL ACHIEVEMENTS**

- Published as first author in a highly rated journal: "Heterogeneity in US Farms: A New Clustering by Production Potentials" (Agriculture, 2023), demonstrating advanced skills in unsupervised machine learning and data segmentation.
- Built the first Corporate Income Tax (CIT) revenue forecasting models for New Mexico using a hybrid approach of traditional econometrics and advanced machine learning techniques.
- Developed and implemented advanced machine learning models for the Consensus Revenue Estimation Group (CREG- consists of economists from all the state agencies), significantly improving oil and gas price and volume forecasts.
- Created "Alphie," New Mexico's first AI assistant for state employees, enhancing efficiency and providing education on AI concepts.
- Contributed to the Tax Expenditure Report (TER), a critical document demonstrating the allocation of taxpayers' money.
- Authored two papers combining traditional econometrics with advanced machine learning techniques: "[Predicting Local Prices using Global Factors: A Machine Learning Approach](#)"

"Predicting Corporate Income Tax Revenues: A Hybrid Approach of Traditional Econometrics and Deep Learning"

## **PROFESSIONAL EXPERIENCE**

### **Research Scientist**

Southeastern Louisiana University, Hammond, LA

February 2025 – Present

- Deliver economic impact studies for healthcare, education, and local industries, providing data-driven insights for chambers of commerce, state agencies, and nonprofit organizations.
- Conduct academic research and develop forecasting, econometric, and causal inference models for key stakeholders
- Design and implement AI and machine learning applications (e.g., forecasting systems, interactive simulators, decision-support dashboards) that make advanced analysis accessible to businesses, policymakers, and community members.
- Lead and contribute to grant-funded projects, including serving as AI expert on major interdisciplinary initiatives focused on equity, workforce development, and higher education innovation.
- Mentor students in econometrics, data science, and applied machine learning.
- Represent the Business Research Center in collaborations with faculty, government, and industry partners, ensuring that research outputs inform both academic and practical applications.

### **Senior Economist**

New Mexico Taxation and Revenue Department, Santa Fe, NM

July 2023 – October 2024

- Conduct economic analyses and forecasting for state revenue streams.
- Develop and implement machine learning models for various economic predictions.
- Automate departmental processes using Python, R, SQL, and specialized libraries like Cerelium.
- Serve as an evaluator for the State Board of Finance (SBOF), analyzing proposals for state bond issuance

**Graduate Research Assistant**

Pennsylvania State University, State College, PA, Aug 2018 - July 2023

Utah State University, Logan, UT, Aug 2016 – May 2018

- Applied advanced econometric methods and machine learning algorithms to analyze large-scale public and private datasets.
- Conducted end-to-end analysis for academic-standard projects.
- Collaborated with external stakeholders and project partners, representing the department in presentations and meetings.
- Conducted economic feasibility studies using extensive financial and economic development datasets. • Utilized IMPLAN datasets and programming to measure the economic sustainability of large-scale projects.

**Business Analyst (Corporate Banking)**

Eastern Bank Limited, Dhaka, Bangladesh, June 2013 – July 2016

- Developed business proposals and presentations communicated to current and prospective clients (primary duty for this position) and achieved sales targets by a large margin.
- Used the three-statement model: income statement, balance sheet, and cash flow statement. Business proposals had some ratio analysis and discounted cash flow model, and Monte Carlo Simulation
- Built consumer credit risk models by collaborating with the credit team (as a management trainee)
- Performed in-depth client, industry, market, and competitor research, asset valuations, and financial analysis.
- Built financial models, discounted cash flow, market multiple, and market transactions, and conducted option pricing analyses.

**Associate, Product Team**

Standard Chartered Bank Dhaka, Bangladesh, June 2009 – December 2010

- Designed trade and cash products
- Did extensive research on competitors' products and product performance
- Designed questionnaires, surveys, and focus-group-discussion to get customer insights to develop new financial products
- Appraised existing and probable clients' performance
- Forecasted which sectors and industries were likely to beat or lag the market
- Analyzed where the overall market and corporate earnings were going