

## EDUCATION

**COLUMBIA UNIVERSITY**, School of International and Public Affairs  
PhD Candidate, Sustainable Development. GPA: 3.9/4  
Specialization: *Applied Microeconomics, Industrial Organization, Econometrics*

New York, NY  
Expected December 2025

**TATA INSTITUTE OF SOCIAL SCIENCES**

MA, Development Studies. GPA: 7.6/10  
*Best Student for the academic year 2016-17*

Mumbai, India  
May 2018

**ST. STEPHEN'S COLLEGE**

BSc (H), Physics. GPA: 81.6/100

Delhi, India  
May 2016

## PROFESSIONAL EXPERIENCE

**WORLD BANK GROUP, Short-Term Consultant**

May 2023 – August 2023

- Designed and analyzed a randomized controlled trial (RCT) of **506** leather goods firms in Dhaka
- Quantified treatment effects of information interventions on technology adoption and energy consumption (**19%** reduction) using panel data econometric techniques (difference-in-differences) to isolate causal effects

**ABDUL LATIF JAMEEL POVERTY ACTION LAB**

New Delhi, India

**Senior Research Associate/Research Associate**

May 2018 – May 2021

- Designed and implemented large scale RCTs on rural electrification and agricultural subsidies across **400+** villages in India, impacting **100,000** households
- Applied causal inference methods to evaluate policy impacts using administrative data from **3M+** consumers
- Developed structural demand models to estimate heterogeneous price elasticities (-0.2 to -1.2) for electricity consumption, enabling targeted welfare-maximizing subsidy design

## RESEARCH EXPERIENCE

**COLUMBIA UNIVERSITY**

New York, NY

**Title: *Barriers to Industrial Growth and Long-run Efficiency: The Role of Policy Distortions***

- Estimated **5%** market efficiency improvements in India's **\$144B** power sector by developing a structural econometric model that predicts how companies make strategic investment decisions under regulatory uncertainty
- Performed counterfactual policy simulations to demonstrate that reforming coal allocation policies will unlock **\$60B** in stranded capital assets and reduce energy shortages by **7%** (**77 Bn kWh**) across 200+ million consumers

**Title: *When Carbon Taxes Aren't Enough: Market Distortions and Environmental Policy Effectiveness***

- Quantified **\$8.6B** in potential annual economic benefits by developing an optimization algorithm that simulates daily operations of 200+ power plants in India's electricity markets
- Proved that efficient coal markets would reduce carbon emissions by **42** million tons annually (9 million cars equivalent) while maintaining grid reliability in the world's third-largest electricity market with **\$44B** in revenue

## LEADERSHIP

**PRESIDENT, Columbia Tango Club** (May 2024-Present): Boosted membership by 30% by implementing targeted social media campaigns and restructuring beginner workshops to improve retention rates

**VICE PRESIDENT & CHIEF COORDINATOR, Sustainable Development Doctoral Society** (Sep 2023-Sep2024):

Expanded annual Interdisciplinary Workshop on Sustainable Development (Columbia's premier PhD research conference) budget by 33% (\$5,000) while increasing sessions by 25%, enhancing food quality, hosting a formal reception, and sponsoring participant travel through successful grant applications

## SKILLS & INTERESTS

- Causal inference, experiments, optimization algorithms, dynamic programming
- Programming: R, Stata (7+ years), Python (3+ years), data visualization, big data analysis
- Technical tools: Git, Google Earth Engine, panel data analysis, remote sensing
- Personal interests: Advanced Tango dancer, expert chef specializing in regional Indian cuisine