

## Rizwan S. Kazi

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EDUCATION **Columbia University, New York, NY** Expected May 2024  
Bachelor of Arts, Mathematics and Economics *Dean's List*  
Thesis: "Product Differentiation and Monopsony"

**The Bronx High School of Science, The Bronx, NY** June 2020  
Regents Diploma with Advanced Designation with Honors and Mastery in Math

RESEARCH INTERESTS Cybernetics, development economics, dynamical systems, game theory, metaphysics, microeconomic theory, ontology, political economy, probability theory, social and political theory

SKILLS **Languages** — Bengali, English, Hindi, Latin, Urdu  
in progress: Arabic, Farsi, French  
**Technical Skills** —  $\text{\LaTeX}$ , C/C++, HTML/CSS, MATLAB, Python, R, SPSS, Stata  
in progress: F#, Java, Julia

PROFESSIONAL EXPERIENCE **Research Assistant** April 2021 - present  
*Columbia University*

I am a research assistant with the Department of Economics at Columbia University and the Economics Division at Columbia Business School.

I've worked for the following researchers on the following projects:

- [Shang-Jin Wei](#), N.T. Wang Professor of Chinese Economy and Business; Chinese trade policy. **Summer 2021**.
- [Elliot Lipnowski](#), Assistant Professor; Extensive-form rationalizability. **Fall 2021**.
- [Niharika Singh](#), Postdoctoral Research Fellow; collective action and public service delivery. **Fall 2022**.
- [Akanksha Vardani](#), PhD Candidate; women's property rights. **Fall 2022**.
- [Jack Willis](#), Assistant Professor; dynamic poverty targeting. **Spring 2023**.
- [Dian Jiao](#), PhD Candidate; bank expansion and structural transformation. **Spring - Summer 2023**.
- [Ann Bartel](#), Merrill Lynch Professor of Workplace Transformation; stakeholder capitalism. **Fall 2023**.

Notable accomplishments include a spatial general equilibrium model looking at bank expansion and designed for policy counterfactuals. I've used a wide range of programming languages for these projects, including MATLAB, Python, R, and C++.

**Research Assistant** March - August 2023  
*University of Chicago Urban Labs*

I was a research assistant for the Energy & Environment Lab's projects, analyzing environmental and energy data and utilizing quasi-experimental and experimental methods to provide government partners with guidance on key policy questions. I worked under Professor [Michael Greenstone](#), Director [Olga Rostapshova](#), and Postdoctoral Scholar [Rajat Kochhar](#).

Projects included:

- Randomized controlled trial in Trenton, NJ: incentives, information, and lead service line replacement
- Program evaluation in Westminster, CO: behavioral nudges and water conservation
- Study in Chicago, IL: economics of parking using Spothero

Notable accomplishments include a vehicle routing problem (VRP) algorithm I designed and implemented to optimize randomized controlled trial treatment delivery, for use in current and future projects. I primarily used R and Python.

#### **Fellow**

February - September 2022

*Yale Research Initiative on Innovation and Scale*

I provided research assistance to Professor [Mushfiq Mobarak](#) at the Yale School of Management and Department of Economics on the ground in Bangladesh, working out of the BRAC Institute of Governance and Development in Dhaka with Dr. [Sakib Mahmood](#).

Projects included:

- Analysis of COVID-19 policies and their effects on schools and learning
- Study of agricultural adaptations in the face of climate change
- Test of climate resilience of government interventions directed against poverty

I used Stata and R for data analysis and ArcGIS, QGIS, and Python for geospatial data analysis.

#### **Research Assistant**

August 2021 - February 2022

*Center on Poverty and Social Policy at Columbia University*

I was a research assistant at the Columbia Population Research Center and Center on Poverty and Social Policy on the [Poverty Tracker](#) project under Dr. [Christopher Wimer](#). I worked on metadata cleaning and models of the effects of housing and healthcare policies. I used Stata for data analysis and cleaning.

#### **Intern**

June - August 2020

*Nicholas Institute for Environmental Policy Solutions at Duke University*

I worked under Policy Associate Rachel Karasik and the Oceanic Plastic Pollution team on [the Plastics Policy Inventory](#), a database of international, national, and subnational public policies targeting plastic pollution. I coded and qualitatively analyzed these policies using nVivo.

#### **Student Researcher**

August 2018 - March 2020

*New York University Department of Economics*

I worked with Professor [Debraj Ray](#) to design a research project studying poverty alleviation policies in developing countries. We developed a theoretical model considering in-kind and cash transfers and applied the model to Indian census data. The resultant paper was submitted to the Regeneron Science Talent Search, the Junior Science and Humanities Symposium, and the New York City Science and Engineering Fair. My work was cited in L. Gadenne, et al., *In-Kind Transfers as Insurance*, [NBER Working Paper 28507](#).

#### **TEACHING EXPERIENCE**

I've tutored the following courses for Columbia University's James H. and Christine Turk Berick Center for Student Advising.

- Calculus II
- Calculus III
- Introduction to Applied Mathematics
- Introduction to Econometrics

EVENTS ATTENDED	<p><b>2020</b> “On commodity transfers in developing countries,” presented at the New York City Science and Engineering Fair, March 8.</p> <p><b>2021</b> UNCTAD YSI Summer School 2021 on Globalization and Development Strategies, organized by the United Nations Conference on Trade and Development and the Institute for New Economic Thinking’s Young Scholars Initiative, August 2-7.</p> <p><b>2021</b> “China in Trade Disputes,” presented at the Columbia Undergraduate Research Symposium, October 15.</p> <p><b>2022</b> Columbia Mathematical Modeling Contest, January 20-24.</p> <p><b>2022</b> Columbia Undergraduate Learning Seminar in Theoretical Computer Science: <i>Philosophy and Theoretical Computer Science</i> and <i>High-Dimensional Probability and Applications to Computer Science</i>, February 4-28.</p> <p><b>2022</b> “China a Cheater?: The PRC in Trade Disputes,” presented at the Stanford Research Conference, April 9-11.</p> <p><b>2022</b> 2022 Insight Series, organized by Goldman Sachs, May 31-June 28.</p> <p><b>2022</b> Digitalization and New Frontiers of Service Delivery: Opportunities and Challenges, organized by the BRAC Institute of Governance and Development, June 20-22, organizer.</p> <p><b>2022</b> Columbia University Department of Mathematics Directed Reading Program <i>in Probability Theory and Stochastic Calculus</i>, Fall 2022.</p> <p><b>2022</b> “The Markov Property for Brownian Motion,” presented before the Columbia University Department of Mathematics Directed Reading Program, December 13.</p> <p><b>2023</b> Columbia Undergraduate Learning Seminar in Theoretical Computer Science: <i>Theoretical Neuroscience and Artificial Intelligence</i>, September 20-December 7.</p> <p><b>2023</b> Environmental Economics and Policy Conference, organized by the Federal Reserve Bank of New York, October 2.</p> <p><b>2023</b> “Algebraic Bethe Ansatz and the XXX spin chain,” presented before the Columbia University Department of Mathematics Undergraduate Seminar, November 28.</p> <p><b>2023</b> “Product Differentiation and Monopsony,” presented before the Columbia University Department of Economics Microeconomics Seminar in Industrial Organization, December 11.</p>
COURSEWORK	<p>Slants indicate graduate-level coursework.</p> <p><b>Fall 2020</b> Intermediate Macroeconomics; Calculus III</p> <p><b>Spring 2021</b> Calculus IV</p> <p><b>Summer 2021</b> Linear Algebra</p> <p><b>Fall 2021</b> Calculus-Based Introduction to Statistics; Intermediate Microeconomics; <i>Introduction to Modern Analysis I</i>; Research Course</p> <p><b>Fall 2022</b> <i>Introduction to Modern Algebra I</i>; Introduction to Econometrics; Ordinary Differential Equations; <i>Political Economy</i>; Research Course</p> <p><b>Spring 2023</b> <i>Advanced Microeconomics</i>; <i>Behavioral Finance</i>; <i>Economic Development</i>; <i>Game Theory</i>; Research Course; Theoretical Foundations of Political Economy</p> <p><b>Fall 2023</b> <i>Advanced Macroeconomics</i>; Differential Geometry; <i>Industrial Organization</i>; <i>Introduction to Modern Analysis II</i>; Statistical Mechanics and Quantum Integrability</p> <p><b>Spring 2024</b> Discrete Time Models in Finance; Partial Differential Equations</p>
ACTIVITIES	<p><i>Columbia Economic Review</i></p> <p>Staff Editor 2020 - 2022, Deputy Editor 2022 - 2023, Managing Editor 2023 - present</p> <p>I lead the Journal Team, responsible for producing the print edition of <a href="#">the Columbia Economic Review</a>, an undergraduate journal dedicated to economics, editing papers of academic rigor and novelty written by undergraduates.</p>