# **BISHMAY BARIK**

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## **Education**

## Shiv Nadar University, Delhi-NCR - M.Sc. Economics

2023-2025

- Semester 1: GPA: 8/10 | Semester 2: GPA: 9.4/10 | Semester 3: 9.24/10
- Subjects:

Macroeconomics (I & II) *(Distinction)*, Econometrics (I & II), Microeconomics (I & II) Economics of Discrimination, Development Economics, Behavioural Economics

## XIM University, Bhubaneswar - B.Sc. Economics (Hons.)

## with Three consecutive years of Merit Scholarship | Second Ranker

2020-2023

- · CGPA: 9.47/10
- Subjects:

Macroeconomics, Microeconomics, Development Economics, International Economics, Game Theory and Behavioural Economics

• Undergraduate Dissertation: Economics of Discrimination: Review of Gary Becker's work and its application on India

# **Research Experience**

## 1. Research Assistant - A Research Project on Culture and Debt in India

Aug 2024 - Present

PIs: Dr. Satyajit Chatterjee, Dr. Ashwini Deshpande & Dr. Nirupama Kulkarni

- Analyzing emigration patterns and debt holdings across different castes, religions, and social strata using the CMIE-CPHS dataset, with a focus on state-wise and district-wise variations in India.
- Investigating loan-taking behavior among various castes and religions, exploring the influence of cultural norms and traditions on these financial decisions.

#### 2. Research Assistant

"Punishment and Crime: Impact of Death Penalty on Local Crime Rates in India" Dec 2024 - Jan 2025 PIs: Dr. Ashwini Deshpande & Dr. Anisha Sharma

#### 3. Research Intern - Center for Advanced Financial Research and Learning (CAFRAL), RBI

PIs: Dr. Gautham Udupa & Dr. Vidhya Soundararajan

- Converting several Stata codes and writing MATLAB equivalents for a project.
- Reviewing RBI circulars and identifying important notifications related to Priority Sector Lending in India.
- Reviewing literature on developmental factors that affect stock market participation and presenting them during the internship at CAFRAL.

# **Dissertation and Research Projects**

(Ongoing) Master's Dissertation: Caste Discrimination: From a Macroeconomics Perspective 2024 - 25 Supervisor: Dr. Partha Chatterjee (Internal) & Dr. Pubali Chakraborty (External)

# (Ongoing) Nightlight Atlas: Illuminating Economic Disparities in India

2025

2024

Software(s) Using: Python | Libraries: Streamlit, Plotly, Tensorflow, Pillow

- Exploring how night-time light intensity correlates with consumption expenditure across Indian regions using SECC and DMSP Nightlights data.
- Using a neural network with TensorFlow & Keras for predictive analysis, with SHAP analysis for model interpretability (collected from SHRUG).

# Tracing Disparities: Educational Spending Before and After Covid-19 Among Social Groups in India

2024

Supervisor: Dr. Gitanjali Sen | Co-author: Manya Pahwa

Software(s) Using: Python & STATA

- Created a Difference-in-Differences model to estimate pre- and post- Covid 19 educational expenditure trends across different religion and caste groups in India using CMIE-CPHS dataset.
- Explored possible reasons to understand why every social group was affected differently during a pandemic.

Bishmay Barik Curriculum Vitæ

# Review on 'Does Immigration Affect the Long-Term Educational Outcomes of Natives?

Quasi-Experimental Evidence' by Eric Gould, Victor Lavy, and Daniele Paserman

2024

Supervisor: Dr. Gitanjali Sen

- Criticizing the original paper, and identifying potential research gaps, and extending the paper.
- Introducing heterogeneity among the students on the basis of ranks achieved in the class, and analyzing the causal effect of increased concentration of migrants on the heterogeneous Israeli students.

# Does Overconfidence Lead to Procrastination?: A Cognitive Reflection Test Experiment

2024

Supervisor: Dr. Punarjit Roychowdhury

- Tried to build a bridge between overconfidence and procrastination.
- Use of Cognitive Reflection Test to identify overconfident people and studied procrastination behaviour among them.

# An Environmental Kuznet's Curve (EKC) Analysis: A Case Study on Ganga and Yamuna

2024

Software(s) Used: STATA, R & Excel

Supervisor: Dr. Ram Ranjan | Co-author: Manya Pahwa, Shiv Nadar University, India

- Created Econometric Model to test for EKC in river Ganga and Yamuna.
- Analysed pollution patterns and tried to identify the cause of pollution in these rivers.

# Economics of Discrimination: Review of Gary Becker's work and its application on India

2022 - 2023

Dissertation, B.Sc. Economics, XIM University | Supervisors: Dr. Bharatee Bhusana Dash & Dr. Pintu Parui

- Criticised Becker (1957) Model of Discrimination
- Applied Becker (1957) Model of discrimination to Indian context, through the lens of caste.

## Gains from Trade: An Intuition behind Why Countries Exchange

2022

Supervisor: Dr. Anwesha Bandyopadhyay | Co-author: Sharanya Roy, XIM University, India

• Extended the Ricardian Model using quantitative macroeconomic models

# **Teaching**

## Shiv Nadar University, India

2023-2024

Graduate Teaching Assistant | Semester - IV

• ECO512: Macroeconomics II (Dr. Kurt Horner & Dr. Trishita Ray Barman)

#### **Graduate Teaching Assistant | Semester - III**

• ECO302: Intermediate Macroeconomics (Dr. Aditi Singh & Dr. Trishita Ray Barman)

## **Graduate Teaching Assistant | Semester - II**

• ECO461: International Economics (Dr. Trishita Ray Barman)

# **Graduate Teaching Assistant | Semester - I**

• MAT101: Calculus - I (Dr. Niteesh Sahni)

## **Course Certifications**

# **Python for Data Science**

2024

Indian Institute of Techology (IIT), Madras

# **Introductory course to DSGE Models in Matlab Dynare**

2024

**Udemy Online Courses** 

#### **Economic Analysis and Data Analytics**

2021

National Association of State Boards of Accountancy

# From Poverty to Prosperity: Understanding Development Economics

2020

University of Oxford

#### **Software**

STATA | MATLAB | L<sup>A</sup>T<sub>F</sub>X | R | Markdown | Python | Jupyter Notebook | Dynare

#### References

Available on request.