# HENAM SINGLA

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#### Education

Ph.D. Economics

University of Houston

Houston, USA

August 2022 - Present

Indian Institute of Foreign Trade

New Delhi, India

M.A. Economics, GPA-6.78/9

July 2018 - May 2020

Kirorimal College, University of Delhi

Delhi, India

B.A. (Hons.) Economics, GPA-7.568/10

July 2015 - May 2018

# **Professional Experience**

University of Houston

May 2024 - Present

Research Assistant

Houston, TX

- Merged datasets of PIAAC and ONet on research related to occupational tasks based on gender and hours distribution
- Cleaning and analyzing data from the OECD; performing analysis using Stata and Python.

New York University

June~2023-September~2023

Research Assistant

Abu Dabi, UAE

- Assisted Professor Samreen Malik and Professor Jordan J. Norris to run machine learning algorithms to a primary survey of firms of 2000 firms with 18 covariates in New Zealand to do link prediction in Python and SQL
- Responsible for segregating the data in four balanced groups for treatment and control to run the next wave of RCT and run econometric analysis
- Implemented Machine Learning and Causal Inference such as decision trees, KNN, and neural networks to do the link prediction for all pairwise firms and compared all methods for efficiency in Python
- Presented applied econometric papers in research seminars on regression discontinuity, DiD, Lasso

# **Indian Institute of Management**

May 2021 - May 2022

Academic Associate (Research and Teaching Assistant)

Bangalore, India

- Provided research assistance to Professor Manaswini Bhalla in studies related to child and women policies for Karnataka,
  Andhra Pradesh, and Tamil Nadu (project for UNICEF) for implementation in difference in difference technique
- Worked as a research assistant to Professor Ritwik Banerjee for a project involving randomized control trials in 38 kendriya vidyalaya and cleaning and analysing the data
- Attended seminars at Economics & Social Sciences department and workshops and managed BINS Conference 2021

## Center for Digital Economy Policy Research, New Delhi

June 2020 - March 2021

Research Assistant

New Delhi, India

- Co-authored Research Paper titled: "Estimation of Economic Impact of Open Digital Ecosystems" with Dr. Jaijit Bhattacharya and Professor P. Vigneswara (Indian Institute of Technology, Delhi) highlighting the quantitative value of public portals such as Health, Education data to the private sector
- Conducted virtual interviews at Common Services Center (CSC) to understand their grievances on digital services such as internet and prepared a report for the government to act
- Collected data through primary research for the paper and met with several executives from Omidyar Network, NGOs and senior economists in Delhi
- Responsible solely for the development of the think-tank's website on WordPress
- Applied social and economic principles to Government-to-Citizen policy through in-depth research and analysis

#### Indian Institute of Foreign Trade

January 2019 - August 2019

Research Intern

New Delhi, India

- Worked with **Dr. Vijaya Katti** (Dean, Academics) to forecast China's Exports to USA and analyzed panel data, finding out sectors (HS Code- 6 Digit) have trade potential in India to export, Textile Market Research (Time-series analysis using cointegration), Global Market of Emerging Economies (SCOPUS); using Advanced Econometric tools (Bayesian VAR, ARCH-GARCH)
- Analyzed the impact of Agarbatti's import duty on import surge and vice-versa with **Professor Tamanna Chaturvedi**. "Should the import duty be reduced be altered or not?" making use of R studio, SPSS, Stata and ran Regression Analysis, Econometric (Granger-Causality), Forecasting (Exponential Smoothening, Holt's Linear). Final report was submitted to Ministry of Commerce (final submission to the Prime Minister)
- Submitted a chapter on the Project of India-UK Complementarity to **Dr. Jaydeep Mukherjee** sponsored by DFID and PwC. Extracting the data and segregated all industries to find Trade Complementarity Index of both the sides and analyzed prospects for India-UK Trade and Investment and assessed the *Opportunities and Challenges at a disaggregated product level (HS Code 6 Digit Level)*; Tools used: Trade Complementarity Index, Structural Models

# Research

# **Published Papers**

• Bhattacharya, J., Bhattacharyya, R., Singla, H., Ilavarasan, P.V. (2022). Estimation of Economic Impact of National Open Digital Ecosystems. In: Senjyu, T., Mahalle, P.N., Perumal, T., Joshi, A. (eds) ICT with Intelligent Applications. Smart Innovation, Systems and Technologies, vol 248. Springer, Singapore.

# $\rm https://doi.org/10.1007/978\text{-}981\text{-}16\text{-}4177\text{-}0_4$

#### Work in Progress

• Happiness and Diversity [here]

## **Working Papers**

- Masters' thesis on Coping with Frustration and Guilt Aversion under the supervision of Dr. AKS Chand [here
- Term paper on 'Bounded Rationality'- analyzed if lucas critique holds or not if an assumption is relaxed mentored by Dr. Divya Tuteja [here]
- Term paper on Estimation of India's GDP function taking agriculture & Services sector of India using Gravity Equation under the mentorship of Dr. Ranajoy Bhattacharya. (Estimated simultaneous equations on Time series data using STATA) [here]
- Participated in RBI Policy Challenge and wrote an essay on "Challenges and Opportunities in Indian Banking Sector"

#### Others

- Chapter on India UK research project under Professor Jaypdeep Mukherjee [here]
- Presented a novel model on vehicle scrappage to Mahindra and Mahindra for Neeti Manthan competition [here]
- Proposal for the paper to quantify nature of risk in Indian treasury bills by using one factor short rate equilibrium models. [here]

#### Relevant Coursework

- · PhD Level
- Advanced and Applied Econometrics
- Microeconomics I and II (A-)
- Macroeconomics I and II (A)
- Econometrics (A-)
- Probability & Statistics (A)
- Econometrics II
- Labor & Social Economics

- Mathematics for Economics
- Investment Theory
- Casual Inference
- Business Statistics
- Investment Theory
- Corporate Finance
- Empirical Issues in Trade
- International Micro & Finance
- Applied Econometrics

- Development Economics
- Advanced Topics in Macroeconomics
- International Financial Management

# Leadership / Extracurricular

#### EIITF Conference December 2020

Organizing Member

Indian Institute of Foreign Trade

- Coordinated in Organizing and managing the paper presentations of the respective sessions and summarized for each technical session to be presented at conclusion and documented in the magazine
- Escorted eminent professors and networking helped to broaden my knowledge of the economic perspective

#### Pareto Times (Economics' Society)

 $\mathbf{July}\ \mathbf{2015} - \mathbf{May}\ \mathbf{2018}$ 

Senior Executive Member

Kirori Mal College

- Head of the paper presentation event and selected papers from 100+ papers to be presented at the event
- Volunteered for fun events and mock stock and contributed for the annual magazine 'Oikos' (one of the oldest magazine of Delhi University)

#### The Round Table Society

July 2015 - January 2016

Organizing Member

Kirori Mal College

 Responsible for the organization held annually; Speakers were invited in September'15 and QA sessions held; Theme was INDIA-2020

# Fellowships

- Presidential Fellowship, University of Houston (2022-2024)
- Graduate Tuition Fellowship, University of Houston (2022-2027)

# Teaching Experience

Intermediate Microeconomics - Prof. Piruz Saboury

University of Houston

Fall 2023 Houston, USA

Economics of Microfinance - Prof. Piruz Saboury

University of Houston

Fall 2023

Houston, USA

Houston, USA

Introduction to Economic Data Analysis - Prof. Natalia Zhivan

University of Houston

Fall 2022, Spring 2023

Econometrics for Consultants - Prof. Tirthatanmoy Das

Indian Institute of Management

May 2021 – September 2021

Bangalore, India

Multinational Corporations - Prof. Kunal Dasgupta

Indian Institute of Management

September 2021 – Present

Bangalore, India

- Conducting discussions with students to review concepts and to build problem-solving skills
- Assisting Professor to prepare the coursework and do research work for the class
- Maintaining office hours for attending to students' queries & Grading students' tests, assignments, and homeworks

#### Scholastic Achivements

- Got the Academic Achiever award at the high school level & was at overall  $2^{nd}$  rank (Commerce Stream) in District (2014-15)(Panipat)
- Central Sector Scholarship Scheme, Ministry of Human Resource Development, Awarded an amount of Rs. 10,000/for academic achievement conducted by CBSE (Central Board of Secondary Education) for Class XII (2015)
- Awarded Certificate of Merit by CBSE for scoring 10 CGPA in class X, CBSE

(2012-13)

# Test Scores

GRE Quants: 170, Verbal: 161

**TOEFL**: 114

# **Technical Skills**

Languages Proficient: Python, Stata, R, LATEX Basic: SQL, E-Views, SPSS, Bloomberg, GRETL

Technologies/Frameworks: GitHub, Matlab, WordPress