Issac Yurui Hu

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Education

Johns Hopkins University, School of Advanced International Studies (SAIS) Washington, DC
Master of Arts in International Relations *09/2021 - 05/2023*

- **GPA:** 3.60/4.00 | **Focus:** International Economics and Finance & Development, Climate, and Sustainability
- **Relevant Coursework:** Econometrics; Corporate Finance; Impact Evaluation; Statistics for Data Analysis

Dickinson College Carlisle, PA
Bachelor of Arts in International Studies (JHU SAIS Cooperative BA/MA Program) *09/2018 - 05/2023*

- **GPA:** 3.75/4.00 | **Minor:** Theoretical Mathematics
- **Relevant Coursework:** Real Analysis; Abstract Algebra; Discrete Math; Linear Algebra; Graph Theory; Logic

Selected Experience

World Bank Group Washington, DC
Junior Professional Associate, Development Economics, Asia (DECPA) *01/2026 - Present*
Junior Professional Associate, Chief Economist Office, South Asia (SARCE) *11/2024 - 01/2026*
Analyst Consultant, Chief Economist Office, South Asia (SARCE) *10/2023 - 11/2024*
Data Consultant, Finance, Competitiveness & Innovation, Investment Climate (ETIIC) *03/2023 - 07/2023*

- Served as the team's research data scientist, developing large-scale data pipelines, harmonization frameworks, and analytical workflows across firm, labor-market, trade, climate, and geospatial datasets.
- Coordinated analytical workflows between the Director in Singapore and the DC-based team, translating priorities into assignments, timelines, quality-control checks, and deliverables across concurrent workstreams.
- Built scalable **Python** and LLM pipelines to process 27 million job postings and resolve 400,000+ firm identities against global registries, creating standardized firm-level datasets for multiple rounds of regional update.
- Automated the ingestion, cleaning, cross-walking, and harmonization of large cross-country datasets using **Stata** and **PowerShell**, including labor-force microdata from 100+ countries and a 20-year global tariff panel.
- Led end-to-end data production, integration, and quality assurance for 282+ analytical outputs, developing scalable **R** geospatial workflows to combine climate projections, firm and household microdata, and spatial datasets.
- Received the *2025 SAR VPU Above and Beyond Award* for contributions to flagship analytical products.
- Harmonized firm-level datasets across 20+ countries for investment climate assessment for the ETIIC team.

Alpha Partners Management, LLC New York, NY
Summer Associate *05/2022 - 09/2022*

- Built data-driven screening and valuation analyses for 50+ early-stage companies, synthesizing financial performance, market size, operating metrics, and business-model data to support investment prioritization.
- Combined quantitative analysis with commercial due diligence and operational benchmarking to translate complex company data into actionable recommendations for Managing Partners and the deal committee.

Selected Publications

Triyana, M., A. W. Jiang, **Y. Hu**, and S. Naoaj. 2026. "Climate Shocks and the Poor: A Review of the Literature." *Wiley Interdisciplinary Reviews: Climate Change* 17, no. 1: e70039.
World Bank. 2026. South Asia Economic Update. April. Washington, DC: World Bank.
World Bank. 2025a. South Asia Development Update. October. Washington, DC: World Bank.
World Bank. 2025b. From Risk to Resilience: Helping People and Firms Adapt in South Asia. June. Washington, DC: World Bank.
World Bank. 2025c. South Asia Development Update. April. Washington, DC: World Bank.
World Bank. 2024a. South Asia Development Update. October. Washington, DC: World Bank.
World Bank. 2024b. South Asia Development Update. April. Washington, DC: World Bank.

Highlighted Projects

AI, Labor Markets, and Firm Productivity in Asia Washington, DC
Data Scientist / Lead Research Analyst *04/2025 – Present*

- **Research Program:** Lead the data science and empirical research stream on artificial intelligence, labor demand, occupational change, and firm performance across developing Asia, managing the end-to-end research pipeline from raw-data construction and measurement to econometric analysis and research delivery.
- **Job Postings and Firm Data:** Built a firm-level analytical database from 27+ million **Lightcast** online job postings covering 400,000+ firms, standardizing firm identities, occupations, locations, and hiring activity and job postings to firm characteristics, ownership structures, and international connections.
- **Firm Matching and Global Networks:** Developed large-scale **Python** entity-resolution and fuzzy-matching workflows to link unstructured employer names to standardized global firm registries and identify firms' domestic origins, operational footprints, and customer, supplier, and partner relationships across markets.
- **LLM and AI Measurement:** Developed LLM-based pipelines to transform unstructured job-posting and occupational text into structured features; mapped 2,000+ Detailed Work Activities to occupational benchmarks and constructed and validated measures of the dynamic AI exposure for firms, occupations, and workers.
- **Cross-Country Labor Force Surveys:** Harmonized labor-force survey microdata across 20 developing economies using common **ISCO** occupation and **ISIC** industry classifications, linking workers and occupations to AI-exposure measures to construct comparable employment, wage, occupation, and industry outcomes.
- **Econometric Research:** Constructed firm–occupation–month panels and developed econometrics models in **Stata**, **Python**, and **R** to examine changes in hiring following the release of ChatGPT and how effects vary with occupational AI exposure, complementarity, and firms' international connections.
- **Research Output:** Produced empirical evidence on AI adoption, labor demand, and firm adjustment across developing Asia, contributing data, analytical frameworks, and research findings to the World Bank's *World Development Report 2026* and regional flagship economic updates.

Green Growth in SAR: Economic Analysis of Regional Environmental Issues Washington, DC
Program Coordinator / Head Analyst *10/2023 - 03/2026*

- **Research Program Leadership:** Served as Head Analyst for a flagship report, coordinating data, empirical research, and analytical production across climate risk and household and firm adaptation, and liaising with teams across the World Bank to align inputs and deliverables.
- **Firm and Climate Data Integration:** Integrated 100+ million firm-level observations with 40 years of daily historical weather data to construct analytical panels measuring firms' responses to climate anomalies in India.
- **Geospatial Data and Risk Measurement:** Developed scalable **R** and GIS workflows combining CMIP 6 climate projections, household and firm surveys, and spatial datasets to construct comparable measures of exposure, vulnerability, and adaptation across South Asia.
- **Analytical Production and Quality Assurance:** Led end-to-end production and validation of 282 charts, maps, and statistical outputs, standardizing analytical workflows and ensuring consistency across multiple research work streams and publication products.
- **Research Output:** Produced empirical and geospatial analysis supporting multiple working papers and flagship products, and co-authored a peer-reviewed article, published in *Wiley Interdisciplinary Reviews* (2026).

Technical Skills

Data Management & Engineering:	Excel, Python, data harmonization, reproducible pipelines.
AI, LLM & Geospatial Analytics:	LLM pipelines, Agentic workflows, Fuzzy Matching, Scikit-learn, QGIS, R (sf, terra), Zonal Statistics, and spatial data integration.
Business & Research Tools:	Excel, Stata, Bloomberg, Haver, Google Colab, R, Databricks.
WBG Training:	MIGA 101, WBG Guarantee Platform, IFC Project Structuring.

References

Dr. F. Ohnsorge, Chief Economist, World Bank Development Economics, Asia fohnsorge@worldbank.org
Dr. S. Sharma, Lead Economist, World Bank Development Economics, Asia ssharma1@worldbank.org
Dr. J. M. Rexer, Economist, World Bank Development Economics, Asia jrexer@worldbank.org