

HARSH VARDHAN PACHISIA

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WORK EXPERIENCE

ENERGY POLICY INSTITUTE AT CHICAGO

Chicago, IL

Data Science Researcher

September 2023 – June 2024

- Analyzed mortality impacts of flooding in Mumbai for 20 million households using drainage maps, flooding, & admin data
- Classified and georeferenced 10 million images into interactive raster maps to visualize environmental degradation over time

ENERGY & ENVIRONMENT LAB, URBAN LABS

Chicago, IL

Data Science Fellow

June 2023 – June 2024

- Improved methane leak inspections by 40% at 2,500 Colorado O&G facilities by deploying boosted trees ML model (in R)
- Reduced data expenses & enhancing model's viability by 50% via replacing proprietary datasets with open-source options

WORLD BANK

Washington, D.C. (remote)

DDP Data Fellow

August 2021 – May 2022

- Developed novel method to analyze societal response to COVID-19 restrictions in Maharashtra and [published](#) findings
- Utilized anonymized cellphone and geospatial data to provide policy recommendations for India's COVID-19 recovery

ARTHA GLOBAL (FORMERLY IDFC INSTITUTE)

Mumbai, India

Data Science Lead and Senior Associate

January 2021 - May 2022

- Led data science team at Artha Global (public sector consultancy & research org); researcher at [Data Governance Network](#)
- Collaborated with seven state and city governments to implement policies, build platforms, and deploy data-driven services such as state data policies, DataSmart cities, geospatial mapping, & COVID-19 recovery impacting millions of citizens
- Directed ~70 volunteers to build a [data product](#) tracking 30 daily COVID-19 indicators used by researchers globally

Data Science Associate

June 2018 - December 2020

- Enhanced Maharashtra's pandemic response by 50% through optimized data pipelines and resource allocation models
- Developed interactive [dashboards](#); published eight working [papers](#), 11 [op-eds](#), and three [briefs](#) on urban and tech governance

EDUCATION

University of Chicago

Chicago, IL

MSc in Computer Science and Public Policy (STEM); GPA: 3.9/4.0

June 2024

Select Courses: Adv Machine Learning & NLP, Large Scale Computing, Data Viz, Program Evaluation, Adv Statistics, Databases

Activities: Presented research at World Bank [conference](#); Head Teaching Assistant (Machine Learning) & Teaching Assistant (Program Evaluation); Global Semi-finalist in [Oxford Map the System](#); Career Consultant

Leonard N. Stern School of Business, New York University

New York, NY

BSc in Business & Political Economy (Minor: Computer Science/Mathematics); GPA: 3.85/4.00

May 2018

PROJECTS

CLIMATE DYNAMICS DECODED: ANALYZING IMPACT, OPINION, AND CHANGE

January 2024 – May 2024

- Conducted a [comprehensive](#) analysis of climate change impacts using NLP models, computer vision, and dashboards
- Leveraged data from FEMA, Census API and Reddit to analyze natural disasters, public opinion, & urban changes

RIDES TO SAFETY: CHICAGO CRIME, UCHICAGO, AND LYFT SMART RIDE PROGRAM

Sept 2023 – Dec 2023

- [Analyzed](#) terabytes of transit & crime data using GCP and PySpark to evaluate impact of Lyft program on travel patterns
- Built Shiny [application](#) and published [article](#) to highlight evolution of crime at UChicago & impact of safety transit programs
- Developed supervised & unsupervised ML models (in PySpark) to evaluate program value and identify key crime patterns

SKILLS

- Programming:** Python, R, SQL | **ML & Analysis:** Spark, Dask, PyTorch, Scikit-learn, Pandas, NumPy, Tidyverse | **Cloud Services:** AWS, GCP, Azure | **Visualization:** Shiny, QGIS, PowerBI, Tableau | **Version Control:** Git, GitLab, Conda
- Languages: English (Native), Hindi (Advanced)