

# DIVIJ SINHA

+1 469 536 5242 | divijs97@gmail.com | divij-sinha.github.io | linkedin.com/in/divij-sinha

## EDUCATION

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**University of Chicago** Chicago, Illinois  
*PhD in Political Economy* 2025 –

Dept. of Political Science & Harris School of Public Policy

*MS in Computational Analysis and Public Policy* 2022 – 2024

Dept. of Computer Science & Harris School of Public Policy

- **Siebel Scholar (2024)** — Selected for the prestigious Siebel Scholars program, for applying a blended approach to problem solving combining computer science and policy analysis.
- **Outstanding Peer Academic Support of the Year (2022–23)** — Recognized for commitment to the academic community and dedication to fostering an environment of learning and growth.

**Birla Institute of Technology and Science, Pilani** Goa, India  
*B.E. (Hons) in Electrical and Electronics Engineering* 2015 – 2019

Minor in Politics, Economics, and Philosophy

## EXPERIENCE

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**Mansueto Institute for Urban Innovation** Chicago, Illinois  
*Research Engineer* June 2023 – Present

- Led the 2024 Data Journalism fellowship, managing 10 Research Assistants on 3 urban-focused projects, integrating advanced data analysis techniques with local journalism to address critical community issues related to public transit, public finance, and property ownership.
- Engineered a new feature representing homogeneous, contiguous sales environments for the Cook County Assessor's Office, towards enhancing the property tax assessment prediction model.
- Created a tool to generate customizable, public-facing property tax explainers for the Cook County Assessor's Office for every parcel in Cook County.
- Operationalized creation of property tax fairness metrics over the last 10 years in Cook County with Prof. Chris Berry.
- Collaborated with Cornell University on a project using cell-phone pings to study localised segregation.

**Metric Geometry and Gerrymandering Lab** Remote  
*Summer Researcher* June 2024 – August 2024

- Created metrics and analysis for multiple large-scale surveys for primary elections in the US, focused on piloting new voting methods and slates of candidates with Prof. Moon Duchin at Cornell University.

**University of Chicago, Center for Spatial Data Science** Chicago, Illinois  
*Research Assistant* January 2023 – June 2024

- Developed a robust web application allowing respondents to input information and draw their neighborhoods on an interactive map of Chicago to map Chicago's neighborhoods through the perception of its residents ([chicago-neighborhoods.com](https://chicago-neighborhoods.com)) with Prof. Talen, Prof. Bae, and Dr. Lydia Wileden with over 4,500 respondents.

**Indian Institute for Human Settlements, Urban Informatics Lab** Bangalore, India  
*Research Associate* September 2019 – August 2022

- Implemented data cleaning, analysis, and modeling using Python and R on multiple research projects, with the goal of creating knowledge relevant for the policy process in the Global South.
- Drafted policy briefs and reports across thematic areas including migration, employment, economic development, social protection, and child nutrition to provide actionable insights for various national,

state, and local government bodies.

- Contributed to the migration section for a [report prepared for the XV Finance Commission](#) on the potential of urbanization to accelerate post-COVID economic recovery.

## RESEARCH & PUBLICATIONS

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- “Reproducing a Household: Recognising and Assessing Paid and Unpaid Domestic Work in Urban India”, *International Labour Organization, IIHS*, 2022.
- “Deficits in Decent Work: Employer Perspectives and Practices on the Quality of Employment in Domestic Work in Urban India”, *International Labour Organization, IIHS*, 2022.
- “Employer Practices and Perceptions on Paid Domestic Work: Recruitment, Employment Relationships, and Social Protection”, *International Labour Organization, IIHS*, 2022.
- “Predicting Operative Temperature with Machine Learning (ML)”, *IBPSA-England’s Building Simulation and Optimisation Conference 2022*, University of Bath.
- “Implementing at-scale adaptive thermal comfort controls for mixed mode building using machine learning”, *Independence and Interdependence of Sustainable Spaces, FARU ’22*, University of Moratuwa.
- “Policy Study in managing Urban Informal Sector”, Report for the Chief Minister’s Rajasthan Economic Transformation Advisory Council, Government of Rajasthan on rethinking urban employment and reframing social security and benefits in the aftermath of the COVID-19 pandemic.

## TEACHING

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### University of Illinois, Chicago

*Adjunct Instructor*

Chicago, Illinois

*January 2025 – May 2025*

- Adjunct instructor of the graduate course PA 470 – Artificial Intelligence and Machine Learning in the Public Sector at the College of Urban Planning and Public Affairs for Spring Semester 2025.

### Harris School of Public Policy, University of Chicago

*Teaching Assistant*

Chicago, Illinois

*2022 – 2024*

- *Data and Programming for Public Policy I* — Essential programming skills and data analysis techniques to support evidence-based policymaking.
- *Mathematics for Computer Science and Data Analysis* — Introduces concepts of linear algebra and fundamentals of machine learning to public policy students.
- *Software Engineering for Civic Tech* — Focuses on software architecture and design, emphasizing skills and technologies essential for collaborative development teams common in open source and civic technology sectors.

### Indian Institute for Human Settlements, Urban Informatics Lab

*Instructor*

Bangalore, India

*September 2019 – August 2022*

- Designed and delivered courses on data and public data sources for the Urban Fellows Programme and multiple ad-hoc sessions for bureaucrats and policy professionals.

## SKILLS

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**Programming:** Python (NumPy, Pandas, Polars, GeoPandas, Statsmodels, scikit-learn, PyTorch), R (Tidyverse, ggplot, sf, leaflet), SQL

**Statistical Analysis:** EDA, Inferential Statistics, Econometrics, Spatial Economics, GLM, Survey Modeling, Machine Learning, Deep Learning

**Data Science:** Analytics, Automation, Visualization (Tableau, Matplotlib, Seaborn), Web Scraping, Geospatial Analysis, Version Control (git)

**Policy Research Methods:** Survey Design & Sampling, RCTs, Large-scale Dataset Analysis (Census, NSS India, NFHS, DHS, ACS)