

# Damini Sharma

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## EDUCATION

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

Chicago, IL

*M.S. Computational Analysis & Public Policy (3.9/4.0 GPA)*

2018 – December 2020

- Research Assistant, Poverty Lab at UChicago Urban Labs
- Economics and Statistics Tutor at Harris School

### University of Chicago

Chicago, IL

*B.A. in Economics (Phi Beta Kappa, Dean's List)*

2011 – 2015

## PROFESSIONAL EXPERIENCE

### The Marshall Project

New York City, NY (remote from CA)

*Data Fellow*

June 2020 – Present

- Published data-driven stories with The Associated Press that were circulated nationally, assessing the impact of COVID-19 on prison populations and the disproportionate deaths among communities of color based on independent data analysis and interviews with prison officials and public health and criminal justice experts
- Streamlined collection and analysis of COVID-19 and population data from state and federal prisons across all 50 states
- Developed visualizations and applications using ObservableHQ and JavaScript to assist analysis of data received from over 50 police departments through FOIA requests

### Cook County Assessor's Office

Chicago, IL

*Data Science Intern*

January – June 2020

- Built application that develops statistical models for equitable and accurate residential property tax assessments based on inputs from users, including options to ingest data from SQL servers or open data portals and compare different estimation methods or model specifications
- Developed a variety of visualizations and metrics to compare performance of different models including both statistical measures of uncertainty and industry-defined metrics of vertical and horizontal equity

### Associazione Antigone

Rome, Italy

*Open Society Foundation Rights and Governance Grantee*

Summer 2019

- Streamlined data collection to visualization process for NGO that monitors conditions in over 200 Italian prisons, building out interactive dashboard that is published on Antigone's website
- Used text analytics software to tag and extract insights from rich qualitative data collected from prison surveys

### EdLabs at Harvard University

Cambridge, MA

*Research Fellow*

2016 – 2018

- Evaluated four school-wide randomized controlled trials designed to close the racial achievement gap by analyzing administrative and project implementation data, employing intent-to-treat and instrumental variable analysis
- Analyzed data from the FBI and over 100 individual police departments to understand impact of Department of Justice investigations into police departments on crime and policing
- Managed field experiment designed to improve principal management practices in 90 public schools in North Carolina

## SKILLS

- Machine Learning with **scikit-learn**, prior experience in natural language processing with **gensim** and **NLTK**
- Web scraping with **BeautifulSoup**
- Statistical and geospatial analysis with **R**, **Stata**, **pandas** and **GeoPandas**
- Prior experience in frontend development with **React.js**, **ES6**, and **HTML/CSS**, data visualization with **ggplot**, **Google Data Studio**, **matplotlib**, and **D3.js**
- Web app development using frameworks in **Python**
- Database administration with **Postgres** and **SQLite**

## LEADERSHIP & COMMUNITY ENGAGEMENT

Neighborhood Schools Program • Teaching Assistant

2013 – 2014

South Side Civic • Marketing & Operations Chair

2019 – 2020

UChicago Arts and Public Life • Evaluations & Assessments Intern for APL Education Team

2019 – 2020

## SELECTED PUBLICATIONS & PROJECTS

- "Prison Populations Drop by 100,000 During Pandemic," The Marshall Project and The AP, July 2020 ([link](#))
- "COVID-19's Toll on People of Color Is Worse Than We Knew," The Marshall Project and The AP, August 2020 ([link](#))
- Data visualization and analysis of case-level data from Cook County State Attorney's Office (static [link](#), interactive [link](#))
- COVID-19 Decarceration and Public Health: Using machine learning to quantify benefits and potential costs of decarceration during the pandemic ([link to code](#))
- Text Analysis of American Prison Writing Archive ([link to code](#))
- Financial portfolio web application showing real-time stock prices built using React.js ([link to code](#))