

# Ajrit Narayanan

Website | Github: [ajritn](#) | Twitter: [@ajrit10](#)

## EDUCATION

**London School of Economics**, London UK

*Aug 2023*

*MSc in Geographic Data Science*

*First Class Honors, Best Dissertation Prize*

**University of Pennsylvania**, Philadelphia PA

*May 2019*

*B.A. Urban Studies, B.A. Economics, Minors in Math & Statistics,*

*Summa Cum Laude, Crime and Punishment Thesis Award*

## CAREER BRIEF

I'm a civic data scientist, AWS certified data engineer, and researcher with experience leading projects around equity analytics, affordable housing, and data privacy. I enjoy building open-source data & tools, thinking about geospatial analysis/cartography and teaching others about programming.

## WORK

**Dept. of Housing & Urban Development**, Washington DC

*May 2023 – Current*

*Lead Data Scientist for Housing Equity*

- Stationed as a Federation of American Scientists' [Impact Fellow](#) in the civil rights arm of HUD to build out data and technology capacity in government
- Led newly formed data team to build automated dashboards using R and Quarto to help 3000+ communities understand demographic changes and housing needs
- Provided strategic guidance to senior leadership and Deputy Secretaries on how to build out data science and AI capabilities at HUD
- Helped FAS launch housing supply [policy challenge](#), to crowdsource ideas for federal actions to increase housing supply

**The Urban Institute**, Washington, DC

*Data Scientist*

*May 19 – Sep 22*

*Data Science Analyst*

*May 18 – May 19*

- Led creation and development of the [Spatial Equity Data Tool](#) in Python & AWS. Used by 500+ users to measure geographic and demographic disparities in data. Covered by [Vice](#), [Eater](#), the [National League of Cities](#), and others
- Co-authored [research paper](#) on ethics and empathy in geostatistical imputation of race and ethnicity when that data is missing
- Built real-time COVID tools for estimating low income [job losses](#), neighborhoods in need of emergency [rental assistance](#), and [socioeconomic impacts](#) of the pandemic by race. Covered by [Planetizen](#), the [Kinder Institute](#), [Route 50](#), and [Stacker](#)
- Developed or maintained open source [urbnthemes](#), [urbntemplates](#), and [urbnmapr](#) (R packages for creating themed graphics, reports, and county/state level maps respectively) which are used by 200+ users
- Collaborated with the BLS, BEA, and other federal agencies to explore [uses of differential privacy](#) for confidential data, led trainings for 20+ government officials on modern data privacy techniques

- Led the R and Mapping Users Groups which provided on call support/training and created [guides](#) on [Data Viz](#) and [Mapping](#) for researchers
- Led trainings on [Intro to R](#), [mapping](#), and Machine Learning for 30+ researchers at a time
- Led project with CIO and Chief of Staff to design organization wide Race and Equity Framework Quarto dashboard that updated daily progress towards DEI goals, was a founding member of Racial Equity Analytics Lab at Urban
- Consulted the Black Wealth Data Center on potential social science datasets and indicators to use for the initial launch of the Racial Wealth Equity Database
- Administered cloud computing environment and managed AWS credits, budget, and Virtual Machines for the organizations in collaboration with our DevOps team

**LSE Digital Skills Lab**, London, UK

*Sep 22 – Feb 23*

*Data Science Trainer*

- Created, and delivered trainings on R, Python, Machine Learning and Tableau to researchers, professors, and students at LSE
- Hosted drop in programming office hours and created Intro to Git/Github Guide for students

**Wharton Social Impact Initiative**, Philadelphia, PA

*Jun 18 - Aug 19*

*Urban Analytics Fellow*

- Developed a DiD model to analyze the effect of “[greening](#)” [vacant lots](#) on surrounding crime rates in Philadelphia

**Autodesk**, San Francisco, CA

*May 17 - Sep 17*

*Machine Learning Intern*

- Trained Latent Dirichlet Allocation models to automatically tag ‘topics’ contained on company wiki pages
- Created web-scraping protocol for handling text and geographic data through firewalls
- Helped create real time anomaly detection model using random forests to detect suspicious logins based on location, IP address, and frequency

**SKILLS**

*Advanced:* R (tidyverse, sf), Python (polars, scikit-learn, seaborn), Quarto, Git, SQL, Markdown, Cloud Computing (AWS, Azure)

*Intermediate:* Q/ArcGIS, Docker, PostGIS, DuckDB Hive, Spark, Bash, Typst, Latex, Tableau

*Basic:* BigQuery, Airflow, JavaScript (Leaflet, Mapbox, kepler.gl), Stata

**CERTIFICATIONS**

- Amazon Web Services (AWS) Certified Solutions Architect Associate (2020)
- Public Trust Clearance