

Ajit Narayanan

[Website](#) | Github: [ajitn](#) | Twitter: [@ajit10](#)

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

JED Foundation, Remote

Dec 23 – Apr 23

Data Science Consultant

- Advised senior leadership on how to build out a data science team with effective hiring and resource allocation. Provided mentorship/training to junior data team members.
- Wrote R and Python scripts for template data pipelines between internal and external (SurveyMonkey, AWS) databases

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 London School of Economics
- 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