

# JOEY MARSHALL

Data Science | Machine Learning | Data Visualization | Public Communication

+1.903.721.2650   joeymarshall@live.com   linkedin.com/in/joeymarshall   github.com/marsha5813

## SUMMARY

Data scientist and sociologist with a PhD and 7+ years of experience in machine learning, high performance computing, and public communication. Media-trained spokesperson with experience communicating to the public, media, and both technical and non-technical audiences.

## EXPERIENCE

### Founder | Fractional Lead Data Scientist

#### Plot Points, LLC

- 📅 2024 - Present   📍 Remote | Washington, D.C.
- Provide data science consulting services, specializing in machine learning, geospatial analysis, and data visualization
  - Develop tailored data solutions for clients, including predictive modeling, demographic analysis, survey research, and custom dashboards
  - Train, deploy and maintain machine learning models in production environments in AWS
  - Maintain production-scale database, ETL and data pipeline services
  - Advise organizations on leveraging data to drive strategic decisions, streamline operations, and enhance customer insights
  - Create geospatial analyses and interactive maps to support clients' operational planning and market analysis
  - Build and maintain client relationships through proactive communication, project transparency, and a commitment to understanding and achieving business goals

### Data Scientist

#### U.S. Census Bureau

- 📅 2020 - Present   📍 Remote | Washington, D.C.
- Developed Python and R packages for internal and external data users
  - Led internal workshops and boot camps for learning and using R
  - Created and led a new research initiative to analyze driving routes to critical infrastructure in the immediate aftermath of natural disasters
  - Deployed as a Census Liaison to FEMA's National Response Coordination Center in support of Hurricanes Idalia (2023), Helene (2024) and Milton (2024)
  - Built a probabilistic record linkage engine to support interagency research on U.S. retail health clinics
  - Traveled internationally and domestically, including with Director of the Census Bureau, to meet with elected officials, data professionals and members of the public
  - Authored and coauthored written research deliverables and public-facing interactive dashboards on topics such as Covid-19 vaccination, teleworking, economic hardship, and sexual orientation and gender identity

### Senior Principal, Quantitative Analytics and Data Science

#### Gartner

- 📅 2019 - 2020   📍 Arlington, VA
- Led start-to-finish data collection and analysis for four survey research projects
  - Awarded "Rookie of the Year" and recognized with an award for "Quantitative Thought Leadership"
  - Led a multidisciplinary, cross-national team through all aspects of the survey research process including questionnaire design, field collection (in coordination with survey vendors), data analysis and dissemination

### Research Associate

#### Pew Research Center

- 📅 2017 - 2019   📍 Washington, D.C.
- Analyzed survey data and population demographic data from multiple data assets to conduct analyses of global trends for the religious demography research team
  - Authored and coauthored public-facing short reads and full-length research reports
  - Communicated results to the public via conference presentations and media interviews (radio, podcast and print media)

### Research Assistant

#### Purdue University

- 📅 2014 - 2017   📍 West Lafayette, IN
- Served as Editorial Assistant and Editorial Manager for the Review of Religion and Chinese Society (Brill)
  - Analyzed geospatial data on religion in China and prepared maps for the Atlas of Religion in China: Social and Geographical Contexts (Brill, 2018)
  - Created and distributed the monthly newsletter for Purdue's Center on Religion and Chinese Society
  - Produced and hosted a monthly audio interview series with guest scholars to support the newsletter

## SKILLS

Python

R

Shiny

Git

Linux

SQL

Docker

SAS

LaTeX

Stata

VBA

Power BI

Tableau

Markdown

Machine Learning

Geospatial Analysis

High Performance Computing

Professional Writing

Public Communication

Project Management

## EDUCATION

### PhD Sociology

#### Purdue University

- 📅 2015 - 2020   📍 West Lafayette, IN
- Recipient: National Science Foundation Graduate Research Fellowship (NSF-GRFP)

### MS Sociology

#### Purdue University

- 📅 2013 - 2015   📍 West Lafayette, IN
- Recipient: Frederick N. Andrews Fellowship

### BS Sociology

#### University of Texas at Tyler

- 📅 2010 - 2013   📍 Tyler, TX
- Summa Cum Laude

## RECENT PUBLICATIONS

### Hurricane Helene's Impact on the Socially Vulnerable in North Carolina

#### U.S. Census Bureau

Joey Marshall, Chase Sawyer, Heather King, Bethany DeSalvo, Walter Peacock

📅 2024

🔗 <https://www.census.gov/library/stories/2024/10/hurricane-helene.html>

### Who Commuted on Baltimore's Key Bridge?

#### U.S. Census Bureau

Joey Marshall, Abraham Cheung, Bethany DeSalvo, Chase Sawyer, Heather King, Isabelle Notter

📅 2024

🔗 <https://www.census.gov/library/stories/2024/05/key-bridge-commuters.html>

### Income Inequality Linked to Social Vulnerability to Disasters

#### U.S. Census Bureau

Chase Sawyer and Joey Marshall

📅 2024

🔗 <https://www.census.gov/library/stories/2024/02/cre-for-equity.html>

### Methodology on Creating the U.S. Linked Retail Health Clinic (LiRHC) Database

#### U.S. Census Bureau

Alice Zawacki, Joey Marshall, Donald Cherry, Xianghua Yin, and Brian W. Ward

📅 2024

🔗 <https://www.census.gov/library/working-papers/2023/adrm/CES-WP-23-10.html>