

JOEY MARSHALL

Data Science | Machine Learning | Business Intelligence

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SUMMARY

Joey Marshall is a fractional lead data scientist helping startups and mid-size companies find value in their data. He is looking for a small number of clients who need focused expert work in data science, natural language processing, geospatial analysis, and machine learning in R and Python. Joey has worked in technical roles at organizations like Pew Research Center, Gartner, and the U.S. Census Bureau. He has a PhD in Sociology from Purdue University.

EXPERIENCE

Founder | Fractional Lead Data Scientist

Plot Points, LLC

- 2025 - Present

Washington, D.C.
- Provide data science consulting services to small- and medium-sized businesses, 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.
- Created and led a new research initiative to analyze driving routes to critical infrastructure in the immediate aftermath of natural disasters
 - Built a probabilistic record linkage engine to support interagency research on U.S. retail health clinics
 - Deployed as a Census Liaison to FEMA's National Response Coordination Center in support of Hurricanes Idalia (2023), Helene (2024) and Milton (2024)
 - Traveled with Census Bureau Director to meet with elected officials, data professionals and members of the public
 - Project managed a multidisciplinary team to improve survey operations improvement using machine learning and federal administrative records
 - Leveraged cloud and on-premises clustered computing systems with large-volume data to clean data and fit statistical models for a variety of production and research purposes
 - 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
- 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 a monthly newsletter and podcast series.

SKILLS

Python

R

Linux

Git

SQL

Docker

Shiny

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