

Jason Matney, Ph.D.

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Geospatial AI & Computer Vision | Director, Data Visualization & Analytics

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SUMMARY

Geospatial AI and computer vision leader with 10+ years taking models from research to production at geographic scale. AI/ML lead for a \$70M disaster resilience program in Puerto Rico—*island-scale feature extraction, computer vision pipelines, and the BIM work feeding PRDOH's proposed Digital Twin City for the island.* Director of Data Visualization & Analytics at ICF: *lead multidisciplinary teams, set analytics strategy, and serve as the go-to builder for high-priority, highly visible GIS and AI prototypes when leadership needs proof fast.* Active TS clearance, eligible for TS/SCI.

PROFESSIONAL EXPERIENCE

ICF International, L.L.C.

Oct 2021 – Present

Director, Data Visualization & Analytics

Reston, VA

- Built the go-to-market geospatial computer vision offering for disaster management.
- Define and execute data, analytics, and AI/ML strategy for major federal programs; deliver reusable data products that enable advanced analytics, automation, and responsible generative AI use.
- Lead and mentor cross-functional teams of data scientists, engineers, and analysts; set priorities, delivery standards, and career growth against mission outcomes.
- Called on as lead developer for high-priority GIS and AI prototypes when programs need rapid, visible proof—pairing ArcGIS/visualization craft with modern AI tooling (including Codex-assisted builds).
- Establish data quality, governance, and lifecycle practices; design automated ETL and containerized workflows that improve accessibility, velocity, and reliability at program scale.
- Advise executives and federal stakeholders; translate AI/ML and analytics outcomes into clear recommendations that influence strategy and investment.

Dewberry Engineers, Inc.

Jul 2019 – Oct 2021

GIS & Analytics Team Lead

Fairfax, VA

- Led a multidisciplinary GIS and data analytics team delivering national-scale risk analysis, automation, and decision-support for federal clients under aggressive timelines.
- Designed automated ETL pipelines (Python, PostgreSQL) that improved data quality and reduced large-scale geospatial processing time by more than 40%.
- Applied machine learning to strengthen national flood risk models and modernize analytical workflows.

BUSINESS DEVELOPMENT & STRATEGIC PARTNERSHIP

ICF Business Development

Oct 2021 – Present

- Partner with BD and proposal teams on high-value pursuits (DoW, FEMA, HHS, DHS); translate requirements into analytics, AI/ML, and data-platform strategies for secure environments.
- Lead technical narrative, solution architecture, and live demos for competitive efforts; led a high-priority FEMADex dashboard buildout (Azure Databricks) that helped win the contract.
- Represent analytics, GIS, and AI capabilities to federal partners and senior stakeholders at industry events and internal forums.

SELECTED IMPACT

- High-Priority GIS & AI Prototypes** 2022 – Present
Lead Developer / Go-To Prototype Lead
- Serve as the go-to lead when high-priority GIS prototypes are needed: turn sparse executive asks into working, demo-ready systems under aggressive timelines.
 - Navy MCC (Find Your Care) — lead developer on a high-visibility GIS “find your care” prototype for Navy mission engagement, built largely single-handedly using Codex.
 - FEMADex — led a high-priority dashboard buildout that helped win the contract.
 - FMCSA — built a high-visibility GIS + AI-enabled “chat with your data” prototype supporting unification of multi-state CDL license risk with illegal drivers.
 - Computer vision — led computer vision work and development for high-priority prototypes and production pipelines, from model development through demo-ready delivery.
 - Additional rapid prototypes and live demos for DOT, DHS, U.S. Coast Guard, Department of War, and Navy pursuits.

- Puerto Rico Department of Housing (PRDOH) – GEO/RAD / GeoFrame** Apr 2024 – Present
AI/ML Lead
- Lead AI efforts for a \$70M disaster resilience program; manage production of high-value AI outputs at island scale across Puerto Rico (including feature extraction and related computer vision pipelines).
 - Pair model outputs with Tableau/ArcGIS decision-support products that inform infrastructure risk assessment and leadership prioritization.
 - Extend detection into structured 3D, developing BIM models of the built environment that feed PRDOH’s proposed Digital Twin City for Puerto Rico.

- U.S. Department of War (DoW) – Military OneSource Demographics** Oct 2022 – Present
Lead, Analytics & Dashboards
- Directed public-facing Tableau dashboards and Alteryx/AWS pipelines delivering demographic insights to DoW leadership with measurable process efficiencies.

- SAMHSA – 988 Lifeline Dashboard** Oct 2022 – Jun 2025
Analytics Lead
- Directed a public Tableau dashboard of 988 Lifeline performance metrics; established PostgreSQL data management and R ETL with AWS Lambda for reliable reporting at scale.

SKILLS

Leadership	People Leadership & Mentoring, Team Building, Stakeholder Management, Executive Advisory
Analytics & AI/ML	Computer Vision, Feature Extraction, Semantic Segmentation, Geospatial ML, Advanced Analytics, Generative AI / Codex
GIS & Prototyping	Rapid GIS Prototypes, BIM & Digital Twin, Remote Sensing, ArcGIS, Decision Support Demos
Data Strategy	Data Products, Data Quality & Governance, ETL, Self-Service BI
Platforms & Tools	Python, SQL, Tableau, AWS, Docker, PyTorch, ArcGIS, Alteryx, PostgreSQL

EDUCATION

Ph.D. Geospatial Analytics, North Carolina State University, 2019 | **M.S. Geography**, Michigan State University, 2014 | **B.A. Program in the Environment**, University of Michigan, 2009

SECURITY CLEARANCE

TS Clearance (Eligible for TS/SCI) Active