

JARED DUMALE

Geography Educator & Researcher | PhD Student | Defense Professional

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RESEARCH INTERESTS

Geographic education and the scholarship of teaching and learning in geography; cultural geography and human-environment relationships; the role of diverse knowledge systems in geographic inquiry; geospatial intelligence (GEOINT) education and the migration of intelligence tradecraft into open-source practice; curriculum design for inclusive and culturally responsive geographic learning.

EDUCATION

PhD, Geographic Education

Texas State University

2025 - Present

- 2025 US Geospatial Intelligence Foundation Stu Shea Endowment Recipient
- 2026 Merrick Merit Fellow
- Research focus: GEOINT education, Undergraduate Learning, Pedagogy & Didactics

Masters, Geographic Information Systems

The Pennsylvania State University

2021 - 2023

- Graduate Certificate, Geospatial Analytics
- Research Focus: Large Language Models, applications to GeoAI, and Geospatial Intelligence

BS, Geography

Park University

2016 - 2018

- Minor: Military Studies

AAS, Avionic Systems Technology

Community College of the Air Force

2014 - 2016

EXPERIENCE

Senior Instructor of Geosciences & Deputy Director of Geospatial Intelligence

2024 - Present

[United States Air Force Academy](#)

- Course Director, World Cultural Geography: designed curriculum covering cultural landscapes, human-environment interactions, political/social geographies, and regional diversity. Taught 13 sections, >500 students, and developed assessments and objectives for in-person and e-learning.
- Deputy Director, GEOINT Certificate Program: managed training, accreditation, governance, and partnerships for 40+ students; increased enrollment by 40%; Principal liaison to US Geospatial Intelligence Foundation.
- Executive Officer coordinating administrative actions for 44 faculty members.
- Authored 4 program self-studies to secure external accreditation; academic advisor for 11 students.
- Faculty supervisor and investigator for undergraduate geospatial research projects (see Research Projects below).

Senior Intelligence Duty Officer & Command Briefer

2021 - 2024

[United States Air Force](#)

- Led 7-person team providing 24/7 air operations intelligence; synthesised multi-source inputs into senior-leader briefings for 30,000+ missions.
- Built 7 workflow tools automating intelligence analysis for high-risk airfields and launch itinerary generation.
- Deployed intelligence officer: Lead threat monitor for humanitarian airlift, evacuation, and refuelling operations in Southwest Asia and Africa. Oversaw safe evacuation of 155 personnel from US Embassy under duress.
- Fused intelligence across foreign policy, defense, signals, and geospatial domains for joint and multinational training & operations.

Chief, Intelligence Unit Support

2019 - 2021

[United States Air Force](#)

- Directed 6-person team developing policy for organising, training, and equipping 114 worldwide intelligence units.
- Intelligence lead on a 4-star general's battle staff during the Russian force build-up preceding the February 2022 invasion of Ukraine; delivered indications, warning, and operational updates to senior leadership.

Noncommissioned Officer

2013 - 2019

[United States Air Force](#)

- Technical lead for 14-person team managing flight & navigation systems on Combat Search & Rescue aircraft.
- Supervised and trained incoming personnel on electronics, safety, and aviation fundamentals.
- Supported counter-narcotics operations; translated sensor and mission data into interagency reporting.

PRESENTATIONS & CONFERENCE ACTIVITY

GEOINT³: Reframing Geospatial Intelligence Education Across Concepts, Representations, and Reasoning 2026
*Academic poster presentation, GEOINT Symposium
Denver, CO*

Reframing Geospatial Intelligence Education and Training 2026
*Keynote address, University of North Alabama Geoscience Alumni Association Conference
Florence, AL*

Workforce 2030: GEOINT, New Missions, Roles, and Technologies 2026
*Joint presentation with US Air Force Academy and Pennsylvania State University
Defence Geospatial Intelligence Conference, London, UK*

From Compass to Cloud to Claude: Reimagining Collaborative Geospatial Intelligence Education for Future Missions 2026
*Invited panelist, Defence Geospatial Intelligence Conference
London, UK*

Using GeoAI to Enhance Air Operations in the Future Battlespace 2025
*Research seminar
United States Air Force Academy, CO*

Leveraging Breakthroughs in AI to Manage, Process, and Protect Space Data, Infrastructure, and Mission Outcomes 2025
*Invited panelist, Defence Geospatial Intelligence Conference,
London, UK*

RESEARCH PROJECTS

AFSC Atlas: Career & Training Dashboard 2026
United States Air Force Academy

- Supervised capstone project building an ArcGIS Dashboard enabling cadets to search Air Force Specialty Codes (AFSC) and view training locations, pipeline sequencing, and timeline milestones in a map-forward interface. Utilized GitHub, Arcade Language, HTML, CSS, and JS.

Manipulation of Visual Hierarchies and its Effect on the Speed & Accuracy of GEOINT Interpretation 2026
United States Air Force Academy

- Associate investigator for cadet-led research project identifying the most appropriate GEOINT visualizations for rapid interpretation.

Geo412 Game-Based Learning Platform 2025 - Present
Texas State University

- Developed interactive geography trivia games (www.geo412.com) to help cadets learn the association of countries with combatant commands.
- Supports research exploring the potential for AI use in designing learning aids and effective teaching tools.

COVEY 535 Geospatial Recovery Study 2025 - 2026
United States Air Force Academy

- Led undergraduate geospatial research supporting recovery of a missing USAF aircraft in Laos. Acquired and analysed 22 historical imagery scenes and terrain models to generate map products refining priority search areas; coordinated across 3 institutions.

GeoAI Research Project (Master's Capstone) 2024
The Pennsylvania State University

- Created proof-of-concept LLM workflow to extract entities and locations, generate summaries, and visualize geocoded events in a GIS dashboard for trend identification and early warning. Validated through 12 analyst demo sessions.

VOLUNTEERING

Community Geographer & Spatial Analyst 2024 - Present
Humanitarian OpenStreetMap Team
Contributed 65+ hours to community-driven crisis-response mapping supporting earthquake relief and mass-casualty events in South Sudan; validated 1,000+ features and mapped 40 km of waterways, supporting locally informed humanitarian planning.

Geo-Mentor 2026
US Geospatial Intelligence Foundation (USGIF)
Volunteer USGIF Geo-Mentor (Education Working Group), coaching student authors to produce publication-ready intelligence briefs against GEOINT/Intelligence Community analytic standards.

AWARDS & SCHOLARSHIPS

Stu Shea USGIF Endowed Scholarship (\$15,000)

Competitive doctoral scholarship awarded annually to one PhD student studying geospatial topics.

Distinguished Graduate

#4 Graduate of a 60-person cohort for military leadership school.

Military Commendation Award

Recognised for geospatial and intelligence contributions; automated threat assessment for 13,000 air missions across 200+ locations.

Military Achievement Award

Awarded for leadership in medical triage and airlift coordination following a civilian mass-casualty incident.

Quality of Analysis Award (\$14,000)

Two-time selectee for competitive research funding (\$7,000) supporting studies on U.S. and partner-nation geospatial analysis capabilities

Honor Graduate

#2 Graduate of 750 trainees in foundational military training course.

PROFESSIONAL TRAINING & CERTIFICATIONS

Lean Six Sigma Green Belt (LSSGB)

Coursework in-progress. Expected October 2026.

2026

ArcGIS Pro Foundation Certification

ESRI Professional Certification.

2026

USGIF Geospatial Intelligence Graduate Certificate

Awarded by the US Geospatial Intelligence & The Pennsylvania State University.

2023

FADE Academy

National Reconnaissance Office program in intelligence data discovery, access, and integration across national, tactical, and open sources.

2021

Basic Intelligence Officer's Course

Core intelligence analysis and briefing tradecraft for cyber, space, and multi-domain operations.

2020

Command Staff Orientation Course

Basic command relationships, administrative tools, and systems & processing for organizations with >1K members.

2020

Officer Training School

U.S. Air Force officer's commissioning program.

2019

Airmen Leadership School

Frontline leadership and supervisory training.

2018

HC-130J Avionics Craftsman Courses

Advanced maintenance and troubleshooting for communications, navigation, and guidance/control systems.

2015