
Cory Hughes

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corymhughes@gmail.com

CORE COMPETENCIES

- **Leadership & Collaboration:** Proven ability to lead projects, develop roadmaps, mentor teams, manage risk, foster collaboration, allocate resources, and coordinate with stakeholders.
- **Programming, Machine Learning & Automation:** Proficient in Python (numpy, pandas, scikit-learn, arcpy, Git, matplotlib, etc.), experience with R, BASH/Shell, SQL, IDL, and MATLAB.
- **Creative Problem Solving:** Skilled in inverse problem solving, data integration, numerical modeling, and experimental analysis
- **Geospatial Analysis, Database Management & Data Integration:** Skilled in geospatial data processing (e.g., ETL), GIS principles and tools (ArcGIS Pro, Agisoft, ENVI, QGIS, GDAL, Petra).
- **Remote Sensing:** Expertise in collecting and analyzing panchromatic, multispectral, hyperspectral, and LiDAR/DEM data. Experience with well-log data, seismic, and core-logs.
- **Visualization & Communication:** Skilled in writing, cartography, and creating visual narratives using Illustrator, Photoshop, and the Microsoft Suite for technical and non-technical audiences.

WORK EXPERIENCE

Geospatial Analyst & Remote Sensing Scientist

University of Arkansas | 2020 – Present

- Developed and applied computational algorithms for stereo-photometry, hydrologic inversion, and terrain classification, increasing analytical efficiency (approximately 5x faster) and reducing error.
- Managed 100s of GB geospatial datasets via ETL workflows for hydrologic inversion, geostatistical analysis, and visualization at over 100 km² scales for 10+ concurrent research projects.
- Integrated subsurface, field, and remotely sensed data with theory for geological assessment and palaeogeographical interpretation.
- Disseminated research outcomes to diverse audiences through 4 peer-reviewed publications and presentations at 10+ international conferences.

Graduate Researcher & Teaching Assistant

Western Washington University | 2018 – 2020

- Evaluated potential biosignature preservation on Mars, publishing results in a peer-reviewed journal.
- Collaborated with NASA's Perseverance and Curiosity Rover teams, influencing mission decisions.
- Taught six quarters of introductory geology courses.

Undergraduate & Post-Baccalaureate Researcher

University of Texas at Austin | 2014 – 2018

- Discovered evidence of an ancient northern ocean on Mars; first-authored peer-reviewed publication.

EDUCATION

Ph.D. in Geology (Remote Sensing & Geospatial Analytics)

University of Arkansas | *Expected 2025*

M.Sc. in Geology (Planetary Science)

Western Washington University | 2020

B.Sc. in Geosciences

University of Texas at Austin, Jackson School of Geosciences | 2017

HONORS & AWARDS

- Doctoral Academy Fellowship, University of Arkansas | 2020 – 2024
- Numerous academic scholarships and awards leadership and inclusion initiatives | 2016 – 2024