

Dan Carver Technical Manager



As the Technical Manager for the Geospatial Centroid, Dan is responsible for ensuring the organization stays on track with every diversifying application of geospatial tools and technologies. He also contributes to active research projects as an analysis and oversees student interns as they complete their project work. Dan excels at developing reproducible scientific workflows that include summary results that allow all users to engage with the content.

Dan has supported projects related to soil geomorphology, riparian ecology, land cover accuracy assessment, and genetic resource conservation. This work has allowed Dan to become an expert at field data collection, vector and raster data processing, and statistical modeling. Dan is a strong promoter of open-source technologies and believes that transparency with data, code, and methods is the best tool for ensuring the end products' quality and trustworthiness.

SELECTED CLIENTS & EXPERIENCE

Research

- Colorado Department of Public Health and Environment
 - Creating the Colorado [EnviroScreen](#) environmental justice mapping tool.
- USDA Agricultural Research Service
 - Crop Wild Relative conservation in the [United States](#), Tunisia, and world-wide
- Cooperative Institute for Research in the Atmosphere
 - Interpretation of Nighttime Light Changes During the COVID-19 Pandemic
- Washington State University
 - Development of Seed Zone Map for *Eriogonum umbellatum*
- University of Colorado Denver
 - Classification Accuracy of GlobeLand30 for Mexico's Forest
- NASA DEVELOP
 - Remote Sensing Methods to Detect Wild Rice (*Zizania palustris* L.)

Applications and Education Content

- International Center for Tropical Agriculture
 - R library ([GapAnalysisR](#)) to evaluate the conservation status of plants.
- Natural Resource Ecology Laboratory
 - [An Introduction to Remote Sensing for Ecologist Using Google Earth Engine](#)

Project Management and Data Analysis

- Geospatial Centroid: Milwaukee-Racine Lead Contamination
- Alternative Transportation at Colorado State University: Reproducible reporting of e-car charging, bike rack utilization, and pedestrian and bike usage on campus.
- Geospatial Centroid: Compile ecogeographic data for bird survey locations across the USA and Europe

Education

B.S., Geology, B.A., Geography
Adams State University, 2012

M.A., Applied Geography and
Geospatial Science
University of Colorado Denver, 2017

Professional Experience

Technical Manager
Geospatial Centroid, 2020-Present

Spatial Scientist
U.S. Department of Agriculture, 2018-Present

GIS Specialist
Natural Resource Ecology Laboratory, 2019-2020

Geoinformatics Fellow
NASA DEVELOP, 2017-2018

GIS Technical Support
U.S. Geological Survey, 2016-2017

Work Demonstrations

GitHub
<https://github.com/dcarver1>
<https://github.com/GeospatialCentroid>

Select Papers & Publications

(2021) GapAnalysis: an R package to calculate conservation indicators using spatial information. *Ecogeography* 44 (7), 1000-1009

(2020) Crop wild relatives of the United States require urgent conservation action. *PNAS* 117(52) 33351-33357

(2020) Assessment of the classification accuracy of the Globeland30 Forest class for the temperate and tropical forest of Mexico. *Applied Geomatics*, 1-17

(2018) CO-RIP: A riparian vegetation and corridor extent dataset for Colorado river basin streams and rivers. *ISPRS International Journal of Geo-Information*. 7(10)

Select Presentations & Training

The Apple of Attu, CSU GIS Day, 2020.

Geospatial Modeling in GEE and R Workshop. U.S. International Association of Landscape Ecology, Annual meeting 2019.

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