TANDIE E. GAUTREAU

[Tandie E. Gautreau | Professional](#)   tegautreau@gmail.com
Denver, Colorado, USA

PROFILE

M.S. – Geography and Environmental Sciences
B.S. – Environmental Science
A.S. – Biological Sciences
Certification – Graduate GIS Certificate
Specializations – Geospatial Analysis, Water Systems, EDH
10+ yrs – customer service, administrative experience, sales

HARD SKILLS

ArcGIS Pro	Jira	Technical Scientific Writing
ArcMap	USGS 3DEP	Technical Scientific Editing
ArcGIS Online	USGS 3DHP	PostgreSQL
Arc Hydro	NHD	SQL
GPS	WBD	QA/QC
Earth Explorer	Google Earth	EDH READ Rules
EDH Data Acquisition Specs		Maxar DigitalGlobe

SOFT SKILLS

Leadership	Business management
Fast learner	Partnership building
Detail oriented	Teamwork
Quick Adaptability	Professional development
Organized	Customer service
Self-starter	Interpersonal communication
Diverse public communication	

EDUCATION

University of Colorado Denver 8/2020 – 5/2023
M.S. – Environmental Science GPA 3.96
GIS Certification, Geospatial Analysis

University of New Orleans 8/2016 – 12/2018
B.S. – Environmental Science GPA 3.56
Coastal Geomorphology, Estuarine Ecology

Delgado Community College 8/2012 – 5/2016
A.S. – Biological Sciences GPA 3.83

EXPERIENCE

Senior Hydrographer
Aerial Services, Inc.
Cedar Falls, IA 2/2025 – present
- Build GIS workflows for hydrology projects, adhering to USGS 3HDP specifications.
- Manage and QA/QC spatial data for LiDAR, imagery, and GIS automation.
- Support project planning and tool development.

Geographer
National Geospatial Technical Operations Center, USGS
Lakewood, CO 2/2024 – 2/2025
- Production and quality assurance of The National Map's surface water data under the 3D Hydrography Program.
- Technical scientific writing and editing.

GIS Technician – Federal Contractor
Geosciences & Environmental Change Science Center, USGS
Lakewood, CO 2/2022 – 2/2024
- Provide technical geospatial assistance to map/create a spatial dataset of solar facilities in the US.
- Collect imagery, interpret high-resolution satellite/aerial imagery, geographic analyses, digitizing, develop geodatabases/protocols for data entry and QC, technical scientific writing.

Graduate Teaching Asst – Environmental Modeling w/GIS
Department of Geography and Environmental Sciences, University of Colorado Denver
Denver, CO 8/2022 – 12/2022
- Present theory/applications for raster spatial analysis and environmental modeling in GIS environment.
- Study processes/spatial relationships supporting decision making in natural and built environments.

Teaching Assistant/Laboratory Instructor
Intro to Physical Geography/Environmental Science
Department of Geography and Environmental Sciences, University of Colorado Denver
Denver, CO 1/2021 – 5/2023
- Present basic understanding of ecological links, environmental systems, scientific approach, as well as processes, forms, and spatial/geographic structures of natural Earth systems.
- Create lessons plans and video tutorials.

General Manager – Service Industry
Black Penny
New Orleans, LA 8/2014 – 7/2019
- Built, opened, operated successful bar in French Quarter.
- Banking/finances, purchasing/inventory, staffing, event planning, tending bar.

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SENIOR HYDROGRAPHER – Remote Denver, CO
AERIAL SERVICES INC.
CEDAR FALLS, IOWA

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APPOINTMENTS

2025 – present	**Senior Hydrographer**, Aerial Services, Inc. (ASI)
2024 – 2025	**Geographer**, USGS, National Geospatial Technical Operations Center (NGTOC)
2022 – 2024	**GIS Technician**, USGS, Geosciences and Environmental Change Science Center (GECSC)
2023	**Teaching Assistant**, Introduction to Physical Geography, University of Colorado Denver
2022	**Graduate Teaching Assistant**, Environmental Modeling with GIS, University of Colorado Denver
2022	**Teaching Assistant**, Introduction to Physical Geography, University of Colorado Denver
2021	**Teaching Assistant**, Introduction to Environmental Science, University of Colorado Denver
2021	**Laboratory Instructor**, Introduction to Environmental Science, University of Colorado Denver

EDUCATION

2023	**M.S.**, University of Colorado Denver, *Geography and Environmental Sciences*
2023	**Graduate GIS Certification**, University of Colorado Denver, *Geospatial Analysis*
2018	**B.S.**, University of New Orleans, *Earth & Environmental Sciences*
2016	**A.S.**, Delgado Community College, *Biological Sciences*

PUBLICATIONS

2023	Fujita, K.S., Ancona, Z.H., Kramer, L.A., Straka, M., Gautreau, T.E., Garrity, C.P., Robson, D., Diffendorfer, J.E., and Hoen, B. (2023). Georectified polygon database of ground-mounted large-scale solar photovoltaic sites in the United States. *Sci Data 10*, 760, https://www.nature.com/articles/s41597-023-02644-8.
2023	Fujita, K.S., Ancona, Z.H., Kramer, L.A., Straka, M., Gautreau, T.E., Garrity, C.P., Robson, D., Diffendorfer, J.E., and Hoen, B., 2023, United States Large-Scale Solar Photovoltaic Database v1.0 (November, 2023): U.S. Geological Survey and Lawrence Berkeley National Laboratory data release, https://doi.org/10.5066/P9IA3TUS.

RESEARCH EXPERIENCE

2022 – 2024   **Geosciences and Environmental Change Science Center,** USGS, Denver, CO
- Manually digitize polygons of solar installations in the U.S. for a first-of-its-kind national dataset.
- Collect, analyze, and interpret high-resolution satellite and aerial imagery and other data.
- Develop protocols for data entry, quality assurance, and quality control.
- Participate in research literature review, writing, and editing processes.
- Work with a diverse team of scientists from the US Geological Survey and the Lawrence Berkeley National Laboratory (LBNL).
- The research and data are publicly available at https://eerscmap.usgs.gov/uspvdb/.

2023	**Community-based Graduate Research**, University of Colorado Denver, Denver, CO

- o Generated density distribution maps of Colorado's 24 native bumble bee (*Bombus*) populations at the request of Colorado's Museum of Natural History and the University of Colorado Boulder.
- o Performed extensive literature review regarding the significance, health, and decline of *Bombus* species on global, national, and regional scales, and the causes of these declines.
- o Performed Kernal density geospatial statistical analyses for each species creating 24 maps.
- o Created a website showcasing the research and maps. The research paper and geodatabase are publicly available at https://bombusmappers.wixsite.com/bombusofcolorado.

2022	**Independent Graduate Research**, University of Colorado Denver, Denver, CO

- o Generated temporal density distribution maps of the western bumble bee (*Bombus occidentalis*) across the state of Colorado from 1877 – 2022.
- o Performed extensive literature review regarding the significance, health, and decline of *B. occidentalis* in North America.
- o Performed point-density and Empirical Bayesian kriging spatial statistical analyses over 25-years from 1877 – 2022, creating five point-density distribution maps and a predictive distribution map.
- o Created a website showcasing research and results. https://tegautreau.wixsite.com/beeography

2021	**Field-based Graduate Research**, University of Colorado Denver, Denver, CO

- o Surveyed channel recovery of burned tributaries using leveling and topographic profiling in Waldo Canyon, Colorado following a wildfire in 2012.
- o Results determined that morphologic recovery of the channels had not yet occurred and may take decades or longer to restore their pre-fire conditions.
- o The published abstract and recorded presentation of the research can be found in the Geological Society of America *Abstracts with Programs*.

ACADEMIC SERVICES

2023	**Presenter**; Illuminating Trends in Solar Photovoltaics, *2023 AAG Annual Meeting*, Denver, CO. Illuminating Trends in Solar Photovoltaics
2021	**Presenter**; Suitability Analysis for Bighorn Sheep Habitats in Glacier National Park, Montana, USA, *GIS Day 2021 Symposium*, Denver, CO. https://www.flickr.com/groups/14761275@N23/pool/
2018	**Member (since 2018)**; Sigma Gamma Epsilon National Honor Society (SGE), American Association of Geographers (AAG), Geological Society of America (GSA)
2018	**Volunteer**; *Coalition to Restore Coastal Louisiana*, New Orleans, LA. https://www.crcl.org/
2017 – 2018	**Volunteer**; UNO Service Coalition, New Orleans, LA https://www.uno.edu/student-involvement-leadership/orgs/service-coalition

TRAINING CERTIFICATES

2024	**ESRI** – Intro to Spatial Data, Getting Started with Data Management, Location-Enabling Data, Getting Started with the Geodatabase, Integrating Data in ArcGIS Pro, Editing Basics in ArcGIS Pro, Managing Raster Data Using ArcGIS

2023	**ESRI** – Python for Everyone, Intro to ArcGIS API for Python, Python Scripting for Geoprocessing Workflows, Creating Python Scripts for Raster Analysis, Spatial Data Science
2022	**ESRI** – DIY Geo Apps
	Dataquest – Combining Tables in SQL, Summarizing Data in SQL, Filtering and Sorting Data in SQL, Intro to SQL and Databases
2021	**ESRI** – Spatial Data Science, Python for Everyone, Going Places with Spatial Analysis, Imagery in Action: Remote Sensing, Building Geoprocessing Models

AWARDS AND SCHOLARSHIPS

2021	Alumni Association Scholarship
2018	Francine Foreman Women in STEM Memorial Scholarship
	Glenn Hebert Coastal Environmental Scholarship
	Jennifer Miller Memorial Environmental Geology Scholarship
	College of Sciences Undergraduate Research Program
2017	UNO Foundation Chevron Geology Scholarship
	UNO Center for Undergraduate Research P.U.R.S.U.E.
	UNO Academic Transfer Scholarship
	College of Sciences Undergraduate Research Program
2016	UNO Academic Transfer Scholarship