

# TANDIE E. GAUTREAU

[Tandie E. Gautreau | Professional](#) [tegautreau@gmail.com](mailto: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

|  |                  |
|--|------------------|
| <b>University of Colorado Denver</b>     | 8/2020 – 5/2023  |
| M.S. – Environmental Science             |                  |
| GIS Certification, Geospatial Analysis   | GPA 3.96         |
| <b>University of New Orleans</b>         | 8/2016 – 12/2018 |
| B.S. – Environmental Science             |                  |
| Coastal Geomorphology, Estuarine Ecology | GPA 3.56         |
| <b>Delgado Community College</b>         | 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 3DHP 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.

# TANDIE E. GAUTREAU

SENIOR HYDROGRAPHER  
AERIAL SERVICES INC.  
CEDAR FALLS, IOWA

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## APPOINTMENTS

2025 – present **Senior Hydrographer**, Aerial Services, Inc.  
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
- 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.
  - 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.
  - Performed Kernal density geospatial statistical analyses for each species creating 24 maps.
  - 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
- Generated temporal density distribution maps of the western bumble bee (*Bombus occidentalis*) across the state of Colorado from 1877 – 2022.
  - Performed extensive literature review regarding the significance, health, and decline of *B. occidentalis* in North America.
  - 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.
  - Created a website showcasing research and results. <https://tegautreau.wixsite.com/beeography>
- 2021      **Field-based Graduate Research**, University of Colorado Denver, Denver, CO
- Surveyed channel recovery of burned tributaries using leveling and topographic profiling in Waldo Canyon, Colorado following a wildfire in 2012.
  - Results determined that morphologic recovery of the channels had not yet occurred and may take decades or longer to restore their pre-fire conditions.
  - 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

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|------|--|
| 2022 | <b>ESRI</b> – DIY Geo Apps<br><b>Dataquest</b> – Combining Tables in SQL, Summarizing Data in SQL, Filtering and Sorting Data in SQL, Intro to SQL and Databases |
| 2021 | <b>ESRI</b> – 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<br>Glenn Hebert Coastal Environmental Scholarship<br>Jennifer Miller Memorial Environmental Geology Scholarship<br>College of Sciences Undergraduate Research Program |
| 2017 | UNO Foundation Chevron Geology Scholarship<br>UNO Center for Undergraduate Research P.U.R.S.U.E.<br>UNO Academic Transfer Scholarship<br>College of Sciences Undergraduate Research Program                               |
| 2016 | UNO Academic Transfer Scholarship   |