# Benjamin C. Lyke

GIS Specialist with a master's degree in geography focusing on Geospatial Analytics and a graduate level GIS certification. Focused on using my GIS and Data analytics to push for equitable situations in terms of the environment, health, and urban practices.

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Benjamin Lyke - Portfolio

#### **EDUCATION**

### M.S. Geography, Geospatial Data and Analytics University of North Texas, Denton TX

2023

GPA 4.0 - Obtained Graduate level GIS certification.

### B.S. Geography, minor in Biology University of North Texas, Denton TX

2021

#### **EXPERIENCE**

### **University of North Texas**, Denton, TX — Teaching Assistant

January 2022 - May 2023

Lead Lab Instructor (Spring 2023); Lab Instructor for Intro to Geology (Fall 2022–Spring 2023); TA for Intro to GIS (Spring 2022)

- Taught three lab sections and 75 120 students per semester through lectures and in-class lab activities.
- Promoted to Lead Lab Instructor by the supervising professor for the Spring 2023 semester.

### **San Giuliano Area Research Project,** Barbarano Romano, Italy — *Graduate Researcher and Museum Liaison*

Summers 2019 and 2022

Graduate Researcher and Museum Liaison (Summer 2022); Student Researcher (Summer 2019)

- Excavated artifacts at medieval, Etruscan, and Villanovan sites for further study in the laboratory.
- Asked to return as a graduate student to assist with GIS, LiDAR, and leading undergraduate student researchers.
- $\bullet$  Managed communication and meetings with the local museum curator for the storage and analysis of artifacts.

#### **SKILLS**

Esri Products (ArcMap, ArcGIS Pro, 3D Analyst, Business Analyst, ModelBuilder)

**QGIS** 

Microsoft Office Suite

Data processing: PowerBI, Tableau, Python, SQL, R, Google Cloud Platform (GCP)

Teaching Proficiency - Teaching Assistant

Customer Service - Media Library Supervisor

Field work - Archaeology, Farm Labor, Field Methods and Mapping

#### **Courses**

Intro/Advanced Python Programming

LiDAR

**Business GIS** 

Health GIS

Digital Image Analysis

Harvesting, Storing, and Retrieving Data

Field Methods and Mapping

### **Commission Shift**, Laredo, TX — GIS Analyst

November 2021 - April 2022

- Analyzed and researched the location and proximity of orphaned and inactive oil and gas wells in Texas.
- Focused on demographic-based disparities in locations of potentially unmaintained oil and gas wells and identified locations of wells for which the Railroad Commission (RRC) could not provide location data.
- Worked from multiple databases provided by the RRC and actively analyzed more than 110,000 location data points.

# **University of North Texas Media Library**, Denton, TX — Courier and Student Supervisor

August 2019 - January 2022

• Coordinated with other university libraries, directed writing captions for movies and documentaries, repairing broken consoles and systems, and coordinating between supervisors and student workers.

### Family Farm, Sumner, TX — Farmhand

Summer 2013 - Present

• Cut, baled, stacked, and delivered loads of hay, and repaired farm equipment on my grandfather's 85-acre farm in east Texas.

#### **PROJECTS**

# Changes in Elevation and Vegetation of Greenbelt Park During a Flooding Period: A LiDAR-based Analysis — LiDAR

Analyzed changes in elevation and presence of vegetation after a 6-year closure due to flooding in Greenbelt Park in Denton, Texas.

# An Analysis of Supervised and Unsupervised Classifications: Rayzor Ranch Over Time — Digital Image Analysis

Compared the accuracy of supervised and unsupervised classifications using imagery from an 8-year period of increased urbanization.

## Water Quality Standards and Waterborne Diseases in the United States: A State Level Analysis — *Health GIS*

Conducted a GIS analysis of waterborne diseases in US states compared to state water quality standards using CDC data.

# Oil Lacking Oversight? An Analysis of Orphaned and Inactive Oil Wells in Texas — Advanced Geospatial Data Analytics

Conducted a GIS analysis of orphaned and inactive oil wells in Texas comparing groundwater contaminated with byproducts of oil and gas.

#### **LANGUAGES**

Basic French

Basic Italian