**DRYVER Z. FINCH** Department of Geography and Sustainability

dryver.finch@outlook.com University of Tennessee, Knoxville

## 731-514-5874 Knoxville, TN 37996

Geographer specializing in remote sensing applications for land and resource monitoring, conservation, and ecological disease surveillance. My work integrates both satellite- and UAV-based multispectral imaging with machine learning techniques to support sustainable management of natural resources and hydrological systems. Passionate about developing Python tools to automate workflows and promote accessibility to advanced analytical tools.

## EDUCATION

2026 (expected)

2024

Master of Science, Geography

University of Tennessee, Knoxville

Topic: Satellite Anthrax Surveillance in Texas, USA

Advisor: Dr. Hannah Herrero

Bachelor of Science

Geographic Information Science and Technology

University of Tennessee, Knoxville

*Magna cum laude*

## CERTIFICATIONS

Valid through 09/2027

Remote Pilot License, Small Unmanned Aircraft Systems

US Federal Aviation Administration

Certificate No. 5217840

## PROFESSIONAL AND TEACHING EXPERIENCE

2024 – Present

Graduate Teaching Assistant

University of Tennessee, Knoxville

Department of Geography and Sustainability

*GEOG 413: Remote Sensing of the Environment*

Overhauled lab curriculum to reflect industry standards; Introduced over 40 students to fundamentals of remote sensing

*GEOG 314: Intro to Uncrewed Aerial Systems*

Prepared students for the FAA Part 107 Knowledge Exam; Introduced students to professional/academic UAS applications

2024 – 2025

GIS Labs Assistant

University of Tennessee, Knoxville

Department of Geography and Sustainability

Assisted Lab Manager with upkeep of over 60 department lab computers’ hardware and software; Conducted field missions with department UAS technology in support of various research projects.

2024 (Aug.-Dec.)

2024 (May-Aug.)

2023 – 2024

2022-2023

2021-2022

Education Collaboration at ORNL (ECO) Intern

Remote Sensing Group

Mentor: Dr. Matt McCarthy

Supported ongoing narcotics smuggling interdiction research with United States Coast Guard and Department of Homeland Security

Science Undergraduate Laboratory Intern (SULI)

Remote Sensing Group

Mentor: Dr. Matt McCarthy

Developed vessel-detection methods using deep learning techniques in Tensorflow

Legal/Executive Assistant

Stephens & DiRado, LLP

Knoxville, TN

Served as main point of contact for the firm; prepared motions, orders, and briefs to be filed in criminal court

Environmental Compliance Intern

Knoxville Utilities Board

Department of Safety and Technical Services

Created site maps for wastewater treatment facilities for annual compliance reports and developed a records-management system

Water Systems Engineering Intern

Knoxville Utilities Board

Department of Water Systems Engineering

Digitized and catalogued all new and repaired assets in ArcGIS Enterprise system; Created project maps for engineers in the department

## AWARDS AND HONORS

2025

2025

2024

Bruce Ralston Geospatial Achievement Award

TN View Fellowship Recipient

University of Tennessee GIS&T Student of Distinction

## CONFERENCE PRESENTATIONS

2025 (Sept.)

2025 (April)

2025 (March)

2025 (Jan.)

TN View Annual Webinar

Title: *Hog-Spot Analysis: Monitoring the Fiends of the Smokies*

American Society of Photogrammetry and Remote Sensing, Mid-South

Oak Ridge National Laboratory

Title: *High-Resolution Land Cover and Phenological Analysis of Anthrax Outbreak Landscapes in the Texas Anthrax Triangle Leveraging Cloud-Based High-Performance Computing*

American Association of Geographers

Disease Ecologies Session

Detroit, MI

Title: *Landscape or Founder Effect: Examining differences in land cover characteristics associated with two distinct lineages of* Bacillus anthracis *in the Texas Anthrax Triangle*

UTK Geo-Symposium

University of Tennessee, Knoxville

Title: *Narrowly Avoided the Past: Remembering Nathan Bedford Forrest at Parker’s Crossroads Battlefield*

## FIELD EXPERIENCE

2025

2025

UAS Imaging of Cataloochee Valley

Great Smoky Mountains National Park

In support of NSF RAPID Grant #2501466

Archeological Aerial Data Collection

Heathsville, VA

In support of UTK Dept. of Anthropology

## GUEST LECTURES

2025

2025

Geography 513: Advanced Remote Sensing

Geography 111: Our Digital Earth

2025

Geography 331: Natural Hazards

2024

Geography 413: Remote Sensing of the Environment

## MEMBERSHIPS

UTK GeogGrads, *Department Events Committee Graduate Representative*

UTK DARC Lab, *Managing Member*

American Association of Geographers

American Society of Photogrammetry and Remote Sensing

Southeastern Division of the American Association of Geographers