

Mitch Torkelson

Wilmington, NC

☎ (641) 777-8270

✉ mitchtorkelson@gmail.com

📁 [mitch-torkelson](#)

🔄 [dinodiver](#) · [Portfolio](#)

EDUCATION

University of North Carolina-Wilmington

M.S. in Marine Science - concentration in Remote Sensing & Environmental Monitoring

Wilmington, NC

Expected Aug. 2024

Creighton University

B.S. in Biology, Minor in Environmental Science

Omaha, NE

May 2019

Universidad San Francisco de Quito-Galápagos

Study Abroad – concentration in Marine Biology

San Cristóbal Island, Ecuador

Aug. 2018 – Dec. 2018

CERTIFICATIONS

GISP, GIS Certification Institute [🔗](#)

Expected Aug. 2024

GEOINT, US Geospatial Intelligence Foundation (USGIF) [🔗](#)

Expected Aug. 2024

Divemaster, PADI [🔗](#)

Dec. 2021

PROFESSIONAL EXPERIENCE

University of North Carolina-Wilmington [🔗](#)

Aug. 2022 – Present

Graduate Research Assistant

Wilmington, NC

- Conducted a comparative study on the accuracy of HawkEye ocean color imagery against in-situ measurements.
- Developed and maintained analytical models for environmental data analysis, significantly improving the efficiency and accuracy of data interpretation. [🔗](#)
- Worked extensively with SQL and Python to manage and analyze large datasets, ensuring the reliability and quality of research outputs.

Geo Owl [🔗](#)

Mar. 2023 – Mar. 2024

Geospatial Analyst

Part time – Remote

- Utilized ESRI ArcGIS Pro for digitization of land features, spatial analysis, and map generation essential for coastal and terrestrial monitoring.
- Managed central GIS data repositories, ensuring organization, maintenance, and quality control; proficient in ArcGIS Pro, ArcGIS Online, and other ESRI applications.

Aquatic Safaris [🔗](#)

Feb. 2022 – Aug. 2022

SCUBA Divemaster

Wilmington, NC

- Led SCUBA divers on explorations of wrecks, ledges, and reefs, ensuring safety and providing exceptional customer service.
- Skills: Equipment Maintenance, First Mate, Retail Sales, Guided Tours.

RED Hospitality & Leisure [🔗](#)

Aug. 2021 – Dec. 2021

First Mate

Key Largo, FL

- Facilitated daily yacht cruises in the Florida Keys and Everglades National Park.
- Skills: Sustainable Tourism, Ecotourism, Guided Tours, Food & Beverage, Yacht Charters.

Coral Restoration Foundation [🔗](#)

Jan. 2021 – Aug. 2021

Conservation Intern

Key Largo, FL

- Led GIS mapping projects to monitor coral habitats, applying GIS for effective conservation management and stakeholder engagement.

Smithville High School [🔗](#)

Aug. 2019 – Mar. 2020

Substitute Teacher

Smithville, MO

- Fulfilled short-term and long-term teaching requirements for K-12, continuing education and reinforcing core concepts.
- Skills: Public Speaking, Classroom Management, Student Engagement, Teaching, Positive Discipline.

University of Georgia-Marine Institute

May 2019 – Aug. 2019

Research Assistant

Sapelo Island, GA

- Utilized drone and remote sensing technology to map and analyze coastal ecosystems, informing regional conservation strategies.

PEER-REVIEWED PUBLICATIONS

Wu, F., Tong, C., Torkelson, M., Wang, Y. (2020). Evolution of shoals and vegetation of Jiuduansha in the Changjiang River Estuary of China in the last 30 years. *Acta Oceanologica Sinica*. 39. 71-78. doi.org/10.1007/s13131-020-1636-7.

CONFERENCES, PRESENTATIONS, AND WORKSHOPS

Cornell Satellite Remote Sensing Workshop

June 2023


Cornell University

Participated in an intensive two-week training workshop designed to impart practical skills for acquiring, analyzing, and visualizing large data sets derived from various ocean satellite sensors. The curriculum emphasized Python programming and NASA's SeaDAS software, covering satellite data sets such as SeaWiFS, MODIS, VIIRS, and HawkEye.

NC Water Resources Research Institute (WRRI) Annual Conference

March 2024

NC State University, Raleigh, NC

Evaluated HawkEye satellite sensors in capturing ocean color imagery for coastal and estuarine environments. Received Honorable Mention for the poster presentation. 

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CMS Research Showcase

Feb. 2024

UNCW, Wilmington, NC

Presented findings to U.S. Secretary of the Interior Deb Haaland and BOEM Director Liz Klein on high-resolution HawkEye data.

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CMS Research Showcase

April 2023

UNCW, Wilmington, NC

Demonstrated capabilities of high-resolution HawkEye data in revealing fine-scale coastal variability.

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Creighton Undergraduate Research Showcase

May 2019

Creighton University, Omaha, NE

Showcased satellite imagery use in identifying chlorophyll and other oceanographic parameters in the South Atlantic Bight.

Omaha in the Anthropocene

Dec. 2017

The Durham Museum, Omaha, NE

Presented research on the impact of ancient hunting tools on megafaunal populations.

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Summer Research Institute

Aug. 2017

Creighton University, Omaha, NE

Explored gentrification impacts in the Bemis and Gifford Park neighborhoods.