

Dean Michael Wrobel

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Education

Master of Science in Coastal Marine and Wetland Studies GPA 3.9
Hydrogeology Focus
Coastal Carolina University

Honors Bachelor of Science in Marine Science GPA 3.8
Coastal Geology Minor
Coastal Carolina University

Career

Geodynamics LLC - Hydrographic Survey Data Processor Present

- Responsible for initial processing and quality control for single beam and side scan sonar data.
- Collaborating with hybrid teams to organize workflows across multiple projects.
- Preparing pre and post survey reports to internal teams and clientele.
- Independently managing complex projects and workflows.
- Mobilizing hydrographic survey operations including safety checks, vessel surveys, and GNSS/INS calibration.

Coastal Carolina University, Gupta College of Science - Graduate Teaching Associate 1 Year, 9 Months

- Instructed undergraduate students in Marine Science 101 lab.
- Developed original instructional materials that blended course curriculum with modern issues and societal challenges.

Sulmara Subsea - Graduate Offshore Surveyor Internship 6 Months

- Cooperated with an international survey team to complete multi-month-long survey operation at sea.
- Conducted field operations for a full geophysical survey for offshore energy infrastructure.
- Accountable for the acquisition of sub bottom profiles and side scan sonar data.
- Mobilized and deployed survey equipment including multichannel seismic, multibeam sonar, side scan sonar, sub bottom profiler, geotechnical systems, and acoustic positioning systems.
- Consulted on specialty technology for subterranean infrastructure surveys such as electrical resistivity.

Coastal Carolina University, Gupta College of Science - Student Assistant 9 Months

- Facilitated positive interactions between students and faculty advisors by managing appointments and responding to student inquiries.
- Maintained confidentiality with sensitive documents through organizational and archival workflows.

South Carolina Dept. of Parks Recreation and Tourism - Assistant Ranger, Lake Wateree State Park 4 Months

- Independently performed daily maintenance and opening procedures for park facilities.
- Provided exceptional service for guest services and managed park facilities.

Internships

South Carolina Dept. of Natural Resources - Freshwater Fisheries Intern 4 Months

- Assisted regional biologists and fisheries technicians with daily field operations.
- Proficient in operating boat and backpack mounted electrofishing systems.
- Collected fisheries science data including length, weight, species identification, otoliths and hard structures, and fin clips.
- Analyzed otoliths using multiple methods including mounting and cross section analyses with low-speed sectioning saws.
- Evaluated water quality data in the field and lab to advise fisheries sampling strategy and create sampling reports.

- Maintained regional remote sensing equipment including HOBO water level loggers and meteorological arrays.

Georgetown County Environmental Serv. Office - UN Youth Corps Intern

5 Months

- Generated routine marketing and outreach materials to engage with other county offices and residents across multiple social media platforms.
- Created educational materials and lecture videos for area elementary and middle schools to complement sustainability and green living curriculum.
- Rehabilitated community garden assets and developed a garden manual incorporating best practices to guide future management of the garden.
- Researched and referred national, regional, and local grant opportunities to improve recycling infrastructure and environmental education.

Research and Presentation Experience

Characterizing Groundwater Flow Across the Barrier Island-High Marsh Interface

3 Years, 9 Months

- Expanded previous research efforts in understanding hydrogeologic interactions within the saltmarsh.
- Synthesized geophysical, geological, and hydrological investigation techniques into a project quantitatively describing groundwater flow and hydrogeologic impacts on barrier island environments.
- Successfully competed for extramural funding opportunities.
- Developed a project website and database.
- Performed quality assurance and control procedures on a large dataset prior to generating metadata and publishing to an open-source repository.
- Managed a research team of seven individuals over a four-year duration.
- Project website at: <https://deanmwrobel.github.io/>
- Presented research at 2024 Southeastern Geological Society of America Meeting and 2024 South Carolina Seagrant Symposium.

Investigating Temporal Groundwater Interactions between a Barrier Island and High Marsh environment

3 Years, 2 Months

- Executed a thirteen-month study to characterize the hydrogeology of the high marsh region of saltmarshes.
- Compiled an extensive literature review to guide research questions and field techniques.
- Produced a journal style manuscript to fulfill requirements for an honors college undergraduate thesis.
- Presented work at 2022 South Carolina Water Resources Conference and 2022 CCU Honors Symposium and Undergraduate Research Competition.

Comparison of Body Condition in commonly Samples Species Found In Oxbow Lakes and Main River Habitats along the Upper and Middle Waccamaw River

10 Months

- Leveraged internship field work to obtain data on recreationally important fish species in oxbow lake habitats.
- Analyzed collected data to produce relative weight indices, log-transformed regression analyses, and analyses of variance for multiple species.
- Created bathymetrical models of habitats to visualize study sites.
- Compiled findings into succinct conservation recommendations to advise regional fisheries managers.
- Presented work at 2022 American Fisheries Society Southern Division Conference and 2022 CCU Undergraduate Research Competition.

Georgetown County Environmental Services Office Spring 2021 Roadside Litter Index

5 Months

- Oversaw the first iteration of an annual roadside litter index aligning with national standards.
- Utilized GIS software to generate survey locations which were personally visited for litter survey.
- Compiled index finding into a report outlining areas needing immediate action and aligning suggested remediation and mitigation actions with the United Nations Sustainable Development goals.
- Oversaw the remediation of impacted sites, collaborating with city and state partners including outreach to area conservation groups.

- Disseminated report to county officials which secured additional funding for litter cleanup and prevention efforts.

Leadership and Volunteer Experience

Eagle Scout, Troop 316, Lugoff SC

- Independently researched, proposed, and implemented an Eagle Scout service project for Lake Wateree State Park.
- Raised funds for materials to construct a communal fire pit and seating area for park guests.
- Managed a group of twenty-five volunteers to complete the project.
- Coordinated with park officials and submitted county permit applications.
- Led Troop 316 as Senior Patrol Leader for two years.
- Planned and coordinated troop events for 35 members.

Marine Science Student of the Year Award

- Volunteered and represented Coastal Carolina University's Marine Science Department during undergraduate recruitment, open house, and outreach events.

President, CCU Saltwater Anglers Club

- Managed executive club functions and planned meetings and events for thirty-one students.
- Communicated with local businesses for club sponsorships, fundraising, and outreach.
- Worked with marketing agencies to design and execute the annual production and distribution of apparel.

Student Solar Ambassador – Coastal Carolina University Chapter

- Reviewed and edited engineering plans for local solar installation projects.
- Researched and compiled residential and commercial solar panel installation and operation rates from various regional utility providers.
- Created intuitive rate tables to be disseminated to community members to inform educate about residential solar opportunities.

Public Relations Chair, CCU Saltwater Anglers Club

- Managed inquiries from prospective members, parents, and local citizens about the club and club events.
- Networked with local fishing captains, charter guides, and fisheries management professionals to collaborate and speak at club meetings and at an annual seminar.
- Maintained professional communication with club sponsors, community members, and college administration.
- Promoted club presence on various social media platforms through routine posts and videos.

Social Media Chair, CCU Bass fishing Team

- Implemented and managed weekly and biweekly postings to multiple social media accounts.
- Increased community and club engagement by creating club member spotlights and informational video series.
- Improved social media presence with an 18% annual follower increase throughout tenure.

Event Coordinator, CCU Saltwater Anglers Club

- Organized the 11th Annual Saltwater Fishing Seminar which hosted five speakers and served sixty guests.
- Sought out fishing-related donations and managed fundraising efforts.
- Planned and implemented various club fishing tournaments including logistics, management of club equipment, and treasurer duties of tournament fees and winnings.

Technical Skills

- Data Analysis using R, MATLAB, Python, and C++.
- Grant writing and management.
- Extensive presentation experience.
- Project and team management experience including multilingual teams.
- GIS experience using ESRI products, QGIS, QINSY, and Global Mapper.
- Extensive field work experience including offshore and long duration projects.
- Data visualization and web development experience.
- Experience with RTK-GNSS and MicroStation surveying.
- Maintenance of remote sensing data and instrumentation.
- Experience in geophysical, geologic, and hydrologic data analysis and experimental design.
- Operation of farm equipment and watercraft up to 33'.
- Geospatial data analysis using QIMERA, SonarWiz, and Hypack.
- Electrofishing and fisheries management sampling experience.
- Intricate knowledge of coastal processes, systems, and hazards.
- Experienced in nutrient, physical parameter, and fecal coliform, water quality analysis.
- Manipulation and QA/QC of large datasets using MATLAB and Python.

Grants, Awards, and Scholarships

NSF Cyberinfrastructure Training for Marine Scientists	<i>Awarded June 2023</i>
Geologic Society of America, Southeastern Chapter Research Grant	<i>Awarded February 2023</i>
CCU 3 Minute Thesis Competition 3 rd Place	<i>Awarded January 2023</i>
USA EPA Watershed Academy Training	<i>Awarded December 2022</i>
BOSIET Certification	<i>Earned May 2022</i>
CCU Undergraduate Research competition 1 st Place Oral Presentation	<i>Awarded May 2022</i>
Marine Science Student of the Year Award	<i>Awarded February 2022</i>
Gupta College of Science Dean's List	<i>August 2018 – May 2022</i>

Presentation Experience

South Carolina Sea Grant Consortium, Research Symposium	<i>May 2024</i>
Geologic Society of America, Southeastern Chapter Meeting	<i>April 2024</i>
South Carolina Water Resources Conference	<i>October 2022</i>
American Fisheries Society, Southeastern Meeting	<i>January 2022</i>
Coastal Carolina University Undergraduate Research Competition	<i>April 2022</i>

Professional Memberships and Societies

Member, The Hydrographic Society of America	<i>Since November 2023</i>
Member, Geologic Society of America	<i>Since January 2023</i>

Member, American Fisheries Society	<i>Since November 2022</i>
Member, National Groundwater Association	<i>Since April 2023</i>
Member, Coastal Carolina Marine Geology Society	<i>Since March 2022</i>
Alumni, Coastal Carolina HTC Honors College	<i>Since May 2022</i>
Member, Coastal Carolina Saltwater Anglers Club	<i>Since August 2018</i>
Member, Coastal Carolina Bass Fishing Team	<i>Since August 2018</i>