

VICTOR HIEU NGUYEN

BS CANDIDATE, DEPARTMENT OF EARTH, MARINE, AND ENVIRONMENTAL SCIENCES

☎ (704)877-6570 | ✉ vhiu@unc.edu | 📷 vhi3u | 🌐 victorhieunguyen

Summary

Third-year undergraduate student at UNC-Chapel Hill. Research experience with coastal observational physical oceanography and biogeochemical numerical modeling. Interested in research using observational data and data assimilation techniques to improve ocean models as they become more important in the monitoring, reporting, and verification (MRV) for carbon dioxide removal projects. Planning on applying to graduate programs in 2026 to pursue studies in physical oceanography.

Education

University of North Carolina at Chapel Hill

Chapel Hill, NC

ENVIRONMENTAL SCIENCES, B.S., MATHEMATICS B.S.

Anticipated Graduation: 2026

- Honors Carolina
- Minor in Physics
- Relevant Coursework: Data Structures and Analysis, Multivariable Calculus, Linear Algebra, Discrete Mathematics, Intro to Data Models and Inference, Blue Carbon Ecosystems, Environment and Society.

Research and Experience

Department of Earth, Marine, and Environmental Sciences, UNC

Chapel Hill, NC

UNDERGRADUATE RESEARCHER

Mar. 2023 - Present

- Data visualizations of Slocum gliders from Processes driving Exchange At Cape Hatteras (PEACH) project
- MATLAB programming for 2D/3D plots, interpolation, time series lagging, and cleaning raw ASCII datasets
- Analysis of primary productivity along Cape Hatteras coastal regions to verify seawater exchange and mixing between shelf and open ocean
- Advisor: Dr. Harvey Seim

Department of Oceanography, Texas A&M University

College Station, TX

SUMMER REU FELLOW

May 2024 - Aug. 2024

- Project on interactive Long-term Ocean-atmosphere-Sediment CARbon cycle Reservoir (iLOSCAR) model
- Modified iLOSCAR to test long-term impact of carbon dioxide removal methods on ocean system interactions
- Compared how direct-air capture, ocean alkalinity enhancement, and enhanced rock weathering can mitigate impacts of global warming and ocean acidification
- Advisor: Dr. Shuang Zhang

Skidaway Institute of Oceanography

Savannah, GA

UNDERWATER GLIDER PILOT

Jul. 2023 - Present

- Remote monitoring of ocean glider fleet managed by the Southeast Coastal Ocean Observing Association
- Modify and create scripts that designates glider waypoints for dead reckoning navigation and behavior
- Oversee file transfer and glider progress in weekly 24 hour shifts with fellow pilots to ensure data visualizations and communications with the glider are up to date

Ackerman Center for Excellence in Sustainability, UNC

Chapel Hill, NC

LARGE LANGUAGE MODELS BUSINESS CLIMATE STRATEGY INTERN

Jan. 2024 - May 2024

- Tested large language models (LLM), including ChatGPT and ChatNetZero for business climate strategy
- Generated sustainability and energy related prompts to evaluate accuracy and performance of LLM response
- Researched ChatNetZero functionality and features and bug reporting for future LLM project development
- Created research report on uses of ChatNetZero and client-facing one pager as final internship deliverables

Leadership

Carolina Science Olympiad

Chapel Hill, NC

PRESIDENT

May 2024 - Present

- Served on the 12 member executive board as Media Chair and Service Chair from 2022 - 2024
- Plan and prepare for invitational tournament hosting 15 high school teams and over 500 competitors
- Coordinate with other NC Science Olympiad alumni networks parent for regional and state tournaments

Office of Undergraduate Research, UNC

Chapel Hill, NC

OUR STUDENT AMBASSADOR

May 2024 - Present

- Serve as a mentor for UNC Accelerated Research Program and help mentees with on-campus summer research
- Hold office hours for students to receive advice on how to get involved with research on campus
- Serve on Earth/Physical Sciences Committee, and hold information sessions and workshops for earth and physical science research twice a year

MathWorks

Chapel Hill, NC

MATLAB STUDENT AMBASSADOR

Aug. 2024 - Present

- Serve as an ambassador to promote MathWorks products such as MATLAB and Simulink on campus at UNC
- Host events and giveaways to teach and inspire students on campus how to use MATLAB software
- Maintain a social media presence and collaborate with organizations on campus to promote MathWorks software

Honors & Awards

2024	Inductee , Epsilon Eta Honors Environmental Fraternity Alpha Chapter	Chapel Hill, NC
2024	Dean's List , University of North Carolina at Chapel Hill	Chapel Hill, NC
2023	Recipient , Honors Carolina Membership	Chapel Hill, NC
2022	Recipient , SECU People Helping People Scholarship Program	Charlotte, NC

Skills

Programming	MATLAB, Tableau, R, Python, JAVA
Front-end	LaTeX, HTML, CSS, Markdown
Languages	English, Vietnamese

Presentations

Seim, H., Edwards, C., and **Nguyen, V.H.** (2024). *poster presentation*. Southern Mid-Atlantic Bight conditions observed with shelf gliders during the PEACH project during 2017-2018. NSF OOI Community Workshop: Pioneer Array, Old Dominion University.

Nguyen, V.H., Zhang, S., and Li, S. (2024). *oral presentation*. Carbon capture potential and ocean system interactions. Department of Oceanography REU Symposium, TAMU.

Nguyen, V.H., Zhang, S., and Li, S. (2024). *oral presentation*. Carbon capture potential and ocean system interactions. Department of Oceanography REU Symposium, TAMU.

Nguyen, V.H., Zhang, S., and Li, S. (2024). *poster presentation*. Carbon capture potential and ocean system interactions. LAUNCH REU Poster Symposium, TAMU.

Nguyen, V.H. and Seim, H. (2024). *poster presentation*. Characterization of Hatteras Front using glider deployments from PEACH project. Celebration of Undergraduate Research, UNC.

Nguyen, V.H. and Seim, H. 2024, *poster presentation*. Characterization of Hatteras Front using glider deployments from PEACH project. Earth, Marine, and Environmental Sciences Research Symposium, UNC.