

AMBER LOPEZ

Email: amber.lopez@uga.edu

EDUCATION

Master's Degree

Civil and Environmental Engineering
University of Georgia, Athens, GA

Expected Graduation: May 2027

Bachelor's Degree

Soil, Water, and Ecosystem Sciences
University of Florida, Gainesville, FL

May 2025

GPA: 3.97

PUBLICATIONS

Lopez, A.R., Judy, J.D. Extraction and Quantification of Microplastics Contained Within Al, Fe and Ca Drinking Water Treatment Residuals. *Bull Environ Contam Toxicol* 115, 30 (2025).

<https://doi.org/10.1007/s00128-025-04095-w>

PROFESSIONAL EXPERIENCE

Employee at Compound Inundation Team for Resilient Applications (CITRA)

May 2025 – Present

Environmental Engineering, University of Georgia

- Assisted PhD student with compound flood modeling research project.
- Performed tasks using Watershed Modeling System (WMS), Global Mapper Pro, ArcGIS.
- Utilized Linux supercomputer operating system to run flood models

Undergraduate Research Assistant

October 2021 – May 2025

Soil Chemistry CORE Lab, University of Florida

- Performed acid digestions for ICP analysis.
- Utilized XRD for mineralogy determination.
- Freeze-dried, grinded, and sieved samples for lab analysis.
- Assisted graduate students with a variety of research projects.

Head Coach

March 2024 – May 2024

UPWARD, Gainesville, FL; Boy's Kindergarten – 1st Grade Soccer

- Coached a boys' soccer team and refereed games.
 - Taught players the basics of soccer and fostered a positive learning environment.
 - Cooperated with parents to ensure clear and open communication throughout the season.
- Organized a snack schedule for games.

Missionary

March 2024

Filter of Hope & CRU University of Florida, Spring Break Mission Trip

- Installed over 100 water filters for individuals, families, and elementary school classes in El Salvador. Interacted with locals and preached the Gospel to them.

- Organized and led morning and afternoon worship sessions for the mission group.

Head Coach

November 2023 – February 2024

UPWARD, Gainesville, FL; Girl's 4th – 8th Grade Basketball

- Coached a girls' basketball team.
- Organized practices and helped players improve their skills. Mentored players and encouraged teammate bonding and cooperation. Witnessed dramatic improvements in player performance and maturity.
- Successfully communicated with parents and resolved conflicts. Organized a snack schedule for games.

Head Coach

March 2023 – May 2023

Girl's Place Inc, Gainesville, FL; Girl's 5th – 8th Grade Volleyball

- Coached a girls' volleyball team.
- Prepared and facilitated practice drills for twice-weekly practices. Coached matches and created player line-ups. Served as a role model for players and encouraged comradery.
- Maintained open communication with parents and organized a snack schedule for games.

Employee

May 2022 – August 2022

Whit's Boca Raton

- Scooped custard, decorated cakes, baked cookies, and restocked items.
- Operated the register and provided exemplary customer service.
- Maintained shop cleanliness and complied with health standards.

RESEARCH EXPERIENCE

Undergraduate Researcher

Spring 2023 – Spring 2025

University Scholars Program, University of Florida

- Conducted individual supervised research under Dr. Jonathan Judy.
- Undertook six months of method development to create a two-step protocol (organic matter oxidation and density separation) for microplastic extraction and staining. Captured images of prepared samples with Olympus Confocal Microscope and utilized images for semi-quantitative analysis.
- Presented preliminary findings at University of Florida's 2024 Spring Undergraduate Research Symposium.
- Currently, drafting an honors thesis for publication Spring 2025.

Researcher

January 2024 – February 2025

National Science Foundation International Research Experience for Students: Andean-Amazonian Watershed Experience: Exploring Sustainability of Mountain Ecosystems in Ecuador (AWESOME)

- Led a research project focused on determining the impacts of tourism on water quality in the Quinuas Watershed outside of Cuenca, Ecuador.
- Lived in Cuenca, Ecuador, for eight weeks and collaborated with faculty and students from the Universidad de Cuenca.

- Programmed and installed auto-samplers for sample collection. Sent samples to the Universidad de Cuenca lab for nutrient analysis.
- Currently, awaiting completion of sample analysis (setbacks due to country-wide power outages).

Research Intern

May 2023 – August 2023

Florida Sea Grant, University of Florida Tropical Research Extension Center

- Designed an 18-column flow through experiment for a personal research project. Studied the impacts of Sargassum seaweed's life stage on nutrient concentrations in the water column. Utilized MIMS (Membrane Inlet Mass Spectrometry) and Spectrophotometer machinery for sample analysis.
- Surveyed transects within Biscayne Bay for an existing sponge project. Identified sponge species and evaluated seafloor cover to infer the area's ability to serve as a potential sponge nursery. Collected and documented real-time water quality data with YSI (Yellow Springs Instrument).
- Assisted faculty and graduate students with various coastal research projects.

Researcher

March 2023 – August 2023

National Science Foundation International Research Experience for Students: Water and Sanitation Research in Ghana

- Taught a five-week after-school science course at Ghana National College in Cape Coast, Ghana. Presented daily lessons on various topics including biodigesters, water sanitation issues, and water mapping.
- Led a team of eight Ghanaian students and oversaw their individual biodigester project. Fostered a positive team environment, supervised data collection, explained chemical processes, and answered any questions.
- Conducted individual interviews and questionnaires following the completion of the program to determine student satisfaction and overall success for further research purposes.

AWARDS & HONORS

2025	Graduate School Masters Fellow Award, University of Georgia
2025	National Science Foundation GRFP Honorable Mention
2025	Highest Honors, Summa Cum Laude University of Florida
2024	Soil, Water, and Ecosystem Sciences Department Scholarship; Outstanding Undergraduate Award
2024	College of Agricultural and Life Sciences Scholarship; Lowe Scholarship; VP Promise Award
2023	Soil, Water, and Ecosystem Sciences Department Scholarship; Donald A. Graetz Education Award
2023	Center for Undergraduate Research; University Scholar
2022	Soil, Water, and Ecosystem Sciences Department Scholarship; Frederick B. Smith Scholarship

2021–2025 College of Agricultural and Life Sciences Scholarship; CALS Freshman Scholar:
Doris Lowe and Earl and Verna Lowe Scholarship
2021–2025 College of Agricultural and Life Sciences; CALS Dean’s List

REFERENCES

Available upon request