Mileisha Lyann Velázquez

Utuado, PR 00641 | mileisha.velazquez@upr.edu

OBJECTIVE

Biologist and Oceanography graduate student interested in undergoing direct research and career experience, interested in becoming integrated into the world of scientific labor and gain hands-on experience in the biology field. This way, demonstrating skills as a biologist and contribute to the scientific community. Furthermore, I am interested in strengthening skills learned on the job.

SKILLS

- Bilingual in Spanish and English, fluent in both reading and writing
- Proficient in computational-technical skills: Microsoft Office, Outlook; Macintosh; Windows; Google +
- Familiar remote sensing analysis programs: ArcGIS; QGIS; online satellite image retrieval platforms (e.g., Sentinel-Hub, Planet etc)
- Proficient in research and report writing skills
- Responsible, highly motivated, trustworthy, and able to work under pressure
- Analytical and problem solving
- Creative, great learning ability to learn new skills on the job, and hardworking
- Basic laboratory skills, which include electrophoresis, chromatography, serial/direct dilutions, microscope work
- Experience interpreting graphical data throughout coursework
- Marine science knowledge to implement to real life situations and multidisciplinary work
- Basic coding in C++ language
- Scuba Diving Skills (Open Water, Advanced in progress)
- Navigation license

EDUCATION

- 2021 – Present — University of Puerto Rico Mayagüez Campus – Master's, Oceanography
- 2019 – 2021 — University of Puerto Rico Mayagüez Campus - Bachelor's, Biology: 2019 – 2021
  - Magna Cum Laude

- 2017 – 2019 University of Puerto Rico Utuado Campus - Associate, Natural Sciences
  (Transfer Student to a Bachelor's Degree)
- 2014 – 2017 Luis Muñoz Rivera Escuela Superior Utuado, P.R Diploma
  - Graduated with High Honors (Magna Cum Laude)

UNDERGRADUATE RESEARCH

- 2020 Isla Magueyes Laboratory, Biodiversity: Micro- crustacean identification,
  Prof. Nikolaos Schizas, Ph. D

INTERNSHIPS

- 2018 Frontiers in Aging & Regeneration Research (FrARR) - U.S.A, Louisiana
  Internship consisted of acquiring knowledge about recent projects in regeneration mechanisms from various organisms and how to implement the process into humans in the future.

- 2022 **RESEARCH** (Summer Internship) U.S Army Corps of Engineers, ERDC-UPRM partnership, Construction Engineering Research Laboratory (CERL) - Champaign, IL
  Internship consisted of gaining real-world experience while conducting research based on waste reduction by implementing use of PLA bioplastics in a compostable environment. This research will provide further insight for the implementation of biodegradable and compostable biopolymers for increased sustaInable practices.

PROJECTS

- 2022 Isla Magueyes Bio-Optics Laboratory, Remote Sensing: Jobos Bay National Estuarine Research Reserve (JBNERR) Water Quality and Mangrove Deforestation Monitoring
  Prof. Roy Armstrong, Ph.D.

- 2022 – Present Isla Magueyes Bio-Optics Laboratory, Remote Sensing
  Puerto Rico and West Maui Water Quality Assessment with Satellite Data Analysis
  Prof. Roy Armstrong, Ph.D.

RELEVANT COURSEWORK

- **REMOTE SENSING COURSE,** MARINE SCIENCES DEPT, UPRM

  Notable Accomplishments:

  - Successfully develop and present a project based of the monitoring progression of mangrove deforestation at construction site in an area within the Jobos Bay National Estuarine Research Reserve (JBNERR)
  - Analyze satellite data using QGIS and ArcGIS programs
  - Interpret water quality parameters which in hand explains environmental processes
  - Recommend future island coastal development to be based on ecological engineering practices to reduce pollution and biodiversity loss

- **BIOLOGICAL OCEANOGRAPHY COURSE,** MARINE SCIENCES DEPT, UPRM

  Notable Accomplishments:

  - Study the biological processes that occur within the distinct marine ecosystems and how they are influenced by external factors. These general factors or parameters include human activity which contributes to climate change, coastal erosion, and pollution.
  - Identify and directly monitor changes to coastal features and benthic habitats in the Natural Reserve of La Parguera, Lajas; PR.

- **MARINE GEOLOGY COURSE,** MARINE SCIENCES DEPT, UPRM

  Notable Accomplishments:

  - Become aware of the dynamic geological processes that occur within our coasts and seafloor, which influences continental margins thus affecting stability of coastal infrastructures
  - Develop a topic involving marine geologic processes, considering subduction zones at trench areas and the geological controls that influence trench fauna

- **CHEMICAL OCEANOGRAPHY COURSE,** MARINE SCIENCES DEPT, UPRM

  Notable Accomplishments:

  - Acquire knowledge of the diverse group of elements that constitutes seawater and the vital chemical reactions that materialize within the ocean
  - Focus on ocean acidification and harmful toxins that pollute our waters and marine species

- Develop a topic involving Neon, a rare element found in our oceans, and identifying its presence, speciation, depth profile, fluxes, and residence time within our oceans

WORK EXPERIENCE

- 2021 – 2022 University of Puerto Rico Mayagüez Campus TA Cellular Physiology Laboratory
- 2021 Tutor in "UPR Estudia Contigo" Program TA Biology Department UPRM

RESEARCH:

- 2022 – Present Ecology and Fisheries Biology of the Yellowtail snapper (*Ocyurus chrysurus)* in PR University of Puerto Rico, Mayaguez funded by NOAA and in association with both MER Consultants and the University of Miami

  - Essential research tasks consist of proposal redaction, census collection of species including measurements and distribution around the island with both in-situ and satellite acquired data. Data generated will serve to validate past census and improve sampling of the *Ocyurus chrysurus* species.

FUTURE ACADEMIC INTERESTS

As I progress pursuing a master's degree in Marine Sciences, I have simultaneously developed an interest in coastal/environmental engineering. This emerging interest has blossomed as I've continued to learn how the physical, geological, chemical, and biological processes that shape our marine ecosystem are negatively affected because of unethical practices that go against marine conservation. Further coastal development is possible by ecological means, in which we should aim to reduce pollution, boost renewable energy technology, and develop by not destroying our natural resources nor biodiversity. As a result, I aim to combine my current master's studies when completed with an environmental/coastal/ocean engineering degree in the near future.