

Biographical Sketch of Jaynise Perez

Jaynise is a fifth-year doctoral student in the department of Civil and Environmental Engineering and Earth Sciences at the University of Notre Dame. She is broadly interested in atmosphere and upper ocean dynamics; specifically, those regarding the South Asian Summer Monsoon. She was part of the Monsoon Intraseasonal Oscillations in the Bay of Bengal (MISO-BOB) field expeditions both in 2018 onboard the Tommy Thompson and 2019 on the Sally Ride. In these, she oversaw a set of atmospheric profiles from daily radiosonde deployments and assisted on the collection ocean data from multiple instruments like CTD and VMP. Her current paper focuses on the effects of multiscale interactions in atmospheric variability that is observed from the collected data from the 2019 field experiment. She also combines the use of satellite and model datasets into her research to study the different dominant modes of variability, from both ocean and atmosphere, that exist within and between the monsoon seasons.

Jaynise holds a bachelor's degree in theoretical physics from the University of Puerto Rico, Mayagüez campus where she worked as a research assistant during her last two years for the regional association of the integrated ocean observing system CariCOOS. It was then where she stepped aside from her previous research in quantum magnetism and began her academic journey in the realm of environmental fluid dynamics by validating a regional atmospheric model using the weather, research and forecasting (WRF) system. Throughout her doctoral career, partially funded by the Kinnessis fellowship, she has conducted numerous presentations in conferences like the American Geophysical Union and the American Meteorological Society. Additionally, Jaynise was part of the 2019 class on JPL's NASA summer school on satellite observations and climate models where she worked in the topic of tropical variability and the analysis of El Niño Southern Oscillations (ENSO) forcing in observations and models. At the end of that year, she was awarded research funding from the Indo-US Science and Technology Forum (IUSSTF). She then worked together with Prof. Bhat at the Center for Atmospheric and Ocean Sciences (CAOS) in the Indian Institute of Science, where she processed and analyzed atmospheric profiles from the Indian Meteorological Society (IMD) as well as the field data from the field expeditions.

Aside from her academic work, one of her interests is promoting graduate careers to students from underrepresented groups by helping them find a sense of belonging and confidence in achieving their academic goals. She does this through organizations like the Society of Women Engineers (SWE), the Latine Graduate Association at Notre Dame (LGAND) and local community organizations.