



## Gianluca P. Astudillo

*Air Quality Data Scientist*



Mr. Astudillo joined Sonoma Technology in 2023 as an Air Quality Data Scientist. He is currently involved in several projects, including refinery fenceline monitoring, assessing uncertainty of low-cost air quality sensor data, and providing quality assurance (QA) for EPA's air quality monitoring dashboards. His areas of interest include spatiotemporal analysis, data visualization, data pipeline optimization, and quality control.

Mr. Astudillo holds a Master of Professional Science degree in Aquaculture from the University of Miami and has worked on geospatial and temporal analysis projects covering a wide range of focus areas. For his Masters capstone project, he analyzed water temperature and spawning frequency data in R Studio to evaluate the performance of two genetically distinct Cobia broodstock cohorts maintained at the University of Miami Experimental Hatchery (UMEH), as well as to validate the UMEH's adherence to its standard operating procedures. As an undergraduate, he completed a research project at the NYU Tandon Dynamical Systems Lab, where he used MATLAB to study the efficacy of historical proxies for firearm prevalence in the United States between 1999 and 2016, as well as evaluate the viability of new proxies for future longitudinal research on firearm prevalence. He also briefly worked on a project evaluating the effects of acute Citalopram administration on individual and social behaviors of zebrafish.

### Education

- MPS, Aquaculture, University of Miami Rosenstiel School
- BA, Environmental Science, New York University

Before joining Sonoma Technology, Mr. Astudillo worked as an aquaculture technician and hydroponic operations specialist, where he grew a variety of leafy greens, microgreens, and finfish for the greater NYC area. He also used his statistical background to streamline process optimization and minimize disruptions to food production.

Mr. Astudillo is an experienced programmer using R, Python, MATLAB and SQL, and is refining his skills with geographic information systems (GIS).