Jennifer L. DeWinter

Vice President, Product Management
ExactAQ Product Manager / Atmospheric Scientist

Ms. DeWinter joined Sonoma Technology's Data Science Department in 2008 and currently serves on the corporate Strategic Advisory Team. As the Vice President of Product Management, Ms. DeWinter leads interdisciplinary teams of scientists and software engineers to develop Sonoma Technology's suite of innovative, user-focused air quality products that serve federal, state, and local air organizations as well as private clients. Ms. DeWinter is the Product Manager for Sonoma Technology's ExactAQ, a hyperlocal air quality forecast model that provides community-scale information about air pollution conditions and forecasts in real time so that air management agencies, businesses, community organizations, and the public can make decisions that reduce exposure risks. Her other responsibilities include managing projects that span air quality, meteorology, fire and smoke, transportation, and software engineering and application development.

Ms. DeWinter has 15 years of experience working at the confluence of atmospheric science and software application development. As Sonoma Technology's Data Systems Project Manager, she worked across project teams to advance technology initiatives, such as the integration of high time- and space-resolution measurements from air sensors into data management systems. She recently led the development and operation of Sonoma Technology's Insight© system to support the real-time management of air quality data collected every second by Google StreetView cars as part of a collaboration with the Environmental Defense Fund (EDF) and Google.

Education

- BS, Earth Science, California Polytechnic State University
- BA, English, California Polytechnic State University

Memberships

- American Geophysical Union

For a list of publications, see sonomatech.com/ResPub/JLDpub.pdf.

In her role as Project Manager, Ms. DeWinter also develops applications for the U.S. Environmental Protection Agency (EPA). For more than eight years, Ms. DeWinter has led the development and operation of EPA's Data Analysis and Reporting Tool (DART), a web-based tool for validation of volatile organic compounds (VOCs), $PM_{2.5}$ speciation, and other air quality data. She has successfully led dozens of contract work orders for the EPA's AirNow program in the areas of software application development, data systems, air sensor data interpretation, air sensor data platform design, and data analysis.

In her work as an Atmospheric Scientist, Ms. DeWinter's recent projects include a national-scale assessment of pollutant concentrations near major roadways to inform state transportation agencies about the relationship between traffic and air pollution. Ms. DeWinter has been the lead analyst on multiple projects involving low-cost sensor data. She recently analyzed two years of PurpleAir data collected throughout California in order to evaluate the patterns of sensor usage and to quantify field-based sensor performance, including performance during wildfires. She also analyzed 12 months of data from a high-density deployment of PurpleAir sensors in Maywood, CA, an environmental justice community. She has helped develop curriculum for Sonoma Technology's Kids Making Sense® program, which teaches students about air pollution by providing hands-on experience collecting measurements using small sensors.

Previously, Ms. DeWinter worked on projects that crosscut air quality, fire science, and fuels treatment, often using satellite-derived data. Her early work included data analysis to support field monitoring studies such as a multi-year near-roadway study of mobile source air toxics in Las Vegas, Nevada, and an ozone saturation study in California's San Joaquin Valley.

Ms. DeWinter is skilled in geographic information systems (GIS), R, Python, SQL, Microsoft .Net (C# and Visual Basic), and the Microsoft Office suite. Prior to joining Sonoma Technology, Ms. DeWinter was a research intern for the National Aeronautics and Space Administration's (NASA) DEVELOP national program at the Langley Research Center.

1450 N. McDowell Blvd., Suite 200
Petaluma, CA 94954 • 707-665-9900