



## Anthony M. Cavallaro

*Senior Solutions Architect*



Mr. Cavallaro joined Sonoma Technology in 2011. His primary duties include designing, describing, and managing the architecture for various air quality-based systems. He leads software development teams in the implementation of these systems and works closely with clients and project managers to ensure their business needs are met.

Mr. Cavallaro was the lead developer and back-end system designer for the redesigned AirNow.gov website for the Environmental Protection Agency (EPA) AirNow team. He

conducted weekly meetings between EPA and the development team to quantify requirements and design a user interface that met their vision. The website was received as a major improvement from its predecessor in terms of usability, presentation, and information provided. It leveraged cloud-based technologies to improve data processing performance and availability while saving on hosting and operational costs.

Mr. Cavallaro has also contributed to the development of several other projects at Sonoma Technology. He developed critical modeling and reporting pathways for the Interagency Fuels Treatment Decision Support System (IFTDSS) website and implemented upgrades to polygon data rendering for IFTDSS's numerous OpenLayers maps. He developed the KML Module for the BlueSky Framework, which takes NetCDF output data produced by the Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) model and displays the PM<sub>2.5</sub> concentration cloud as a Google Earth map overlay. He has also aided the development and performance testing of the Statistics-based Spatial Data Quality Control (SDQC) module for Vaisala.

Mr. Cavallaro is proficient in a variety of programming languages, including Python, Java, PHP, and JavaScript. He also has a strong background in various tools and technologies, including the PostgreSQL relational database system with PostGIS for optimized geospatial storage and queries, Amazon Web Services like Lambda, Simple Queue Service, and Simple Storage Service for facilitating data processing pipelines, Spring Boot and Flask frameworks for RESTful API applications, and productivity-enhancing software, such as JIRA (issue tracker), Jenkins (continuous integration), Subversion and GIT (versioning/revision control).

### Education

BS, Computer Science, *cum laude* with distinction, Sonoma State University

For a list of publications, see [sonomatech.com/ResPub/AMCpub.pdf](http://sonomatech.com/ResPub/AMCpub.pdf).