The **4th** NOAA Workshop on **Leveraging AI in Environmental Sciences**

Sept. 6-9, 2022

Virtual

About the Workshop

This virtual workshop is a continuation of the NOAA series of workshops on "Leveraging AI in Environmental Sciences." The fourth event leverages the successes of previous workshops and encourages participation by scientists, program managers, and leaders from the public, academic, and private sectors who work in AI and environmental sciences.

This year's interactive workshop will focus on collaboration building and active development of AI-powered applications and community standards. We invite developers, data scientists, domain experts, social scientists, and downstream users to form small teams around different use cases that are relevant to NOAA mission areas.



In this interactive workshop, we aim to foster collaboration to explore three themes:

- *Fire Weather and Impacts:* Fire weather sits at the intersection between terrestrial ecosystems, atmospheric systems, and society. The impacts of fire weather on communities in or near the path of fire progression can be disastrous both in the short and long term. How can we leverage AI and rich environmental data to develop solutions to help diverse stakeholders to better quantify and manage the impact of fire weather?
- Al for Ocean Conservation: The ocean plays a crucial role in climate and the world's sustainable development goals. Al has demonstrated great potential in ocean conservation, such as identifying wildlife and monitoring illegal fishing. How can we proliferate AI development for ocean conservation by reducing the barriers of using state-of-the-art AI tools?
- Interoperable Digital Twin Earth: Digital Twin Earth (DTE) is a digital representation of the complex Earth system that allows us to visualize, monitor, and forecast natural and human activity on the planet. As different agencies and organizations, including NOAA, NASA, ECMWF, and UK Met Office, start to develop various DTE systems, how can we develop an international standard to ensure digital twins are interoperable and easily integrated into other digital twin systems for different socioeconomic sectors?

