Jeff joined ERT.space in Oct 2024 to build and lead the new Innovation Foundry and the related science and technology innovation approaches across the full range of ERT's support to federal customers.

Before going to ERT.space, Jeff was Chief Scientist for Weather, Climate, and Environmental Sciences at MITRE Corporation starting in April 2022. And before MITRE, Jeff had a 25-year federal research career in experiential and computational atmospheric photochemistry as a senior scientist in national labs at NOAA and USEPA developing and deploying high-precision sensors in field work both in situ and on multiple aloft platforms. For this work he also designed and led regional and continental-scale HPC studies of atmospheric chemical transport and transformations for cross-validation studies of data and models.

Following those civilian national lab positions, Jeff worked for the US Army Engineers where he created and led for more than 10 years as Chief Climate Scientist the Army Engineer national program of extensive partnerships to create, combine, and transform field observations and continental-scale hydro-climatology model products into focused engineering inputs for measuring specific threats to continued national water and energy security and enhancing deeper and wider resilience at critical US infrastructure against known and forecast threats and impacts.

His work evolved into AIML assisted modeling earlier while working as a federal scientist, and at ERT.space now involves innovation with ML emulators and other advanced analytics components to simplify use of the very large arrays of Earth science and space weather data and corresponding numerical model products. The goal here is evaluation that helps ERT.space identify the most useful digital analytic approaches and computational models for supporting decisions and actions that enhance U.S. public safety and prosperity. The first new tests of these AIML methods are occurring in support of the Ground Enterprise Mission sets that ERT.space supports in bringing these vast data arrays closer to decision-makers in forms they can use.

Jeff holds a Ph.D. in tropospheric chemistry from the University of North Carolina at Chapel Hill, regularly reviews for journals in the atmospheric, hydrologic, and risk sciences and for national agency proposal selections, and has co-written more than 150 peer-reviewed open-literature publications.