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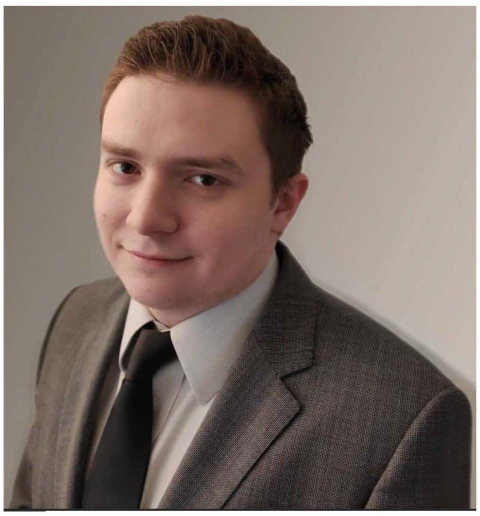
Artificial Intelligence



Michael Alexander Geyer, Ph.D.

Los Alamos National Laboratory

Tuesday, 10 June 2024
2:00PM - 3:30PM
BSB 3.03.02

Enabling AI for Science Applications: Reducing Data Requirements and Quantifying Uncertainty

Abstract: Artificial intelligence has made a splash in both the media and research in the last year. 'Foundation models' which are large scale deep learning models trained on internet scale datasets have been extremely successful in domains such as language processing and image generation. In this talk, we will explore the limitations of these models, specifically for scientific applications. We examine ways to reduce the data requirements, quantify the uncertainty, and evaluate the out of distribution performance of deep learning models, so that they can be applied to science problems.

Bio: Michael Geyer is a Postdoctoral Fellow and researcher in the field of Artificial Intelligence at the Los Alamos National Laboratory. He specializes in Deep Learning, and Robustness of AI Systems. He obtained his Ph.D. in Computer Science from The University of Texas at San Antonio, where his research focused on developing novel techniques for AI explainability and reliability. Michael has been a researcher at LANL since the Summer of 2021. At LANL, Michael brings his expertise in meta-learning algorithms and adversarial robustness to develop resilient and adaptable AI systems.

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