Transforming AI Practices: From Data Generation to Automated MLOps

Abstract

Agility enables swift adaptation to changing market needs and new technologies. Moreover, mature AI utilization necessitates a strategic shift, focusing on incorporating AI into core business operations to boost efficiency and drive innovation. Increasing agility and harnessing the power of mature AI, this presentation showcases the synergy of a comprehensive MLOps pipeline, a user-centric application, and a robust data management system, contributing to the model's reliability, scalability, and maintainability. Incorporating Continuous Integration/Continuous Deployment (CI/CD) practices ensures seamless integration of code changes and automated deployment, expediting the development lifecycle and facilitating rapid iteration. Our solution integrates automated model training with fine-tuning, creating a robust lifecycle that monitors model drift and facilitates manual model approval.

Short Bio

Dr. Seyed Vahid Mirnezami is a senior Computer Vision Scientist at Bayer Crop Science since 2019. Prior to this, he pursued his PhD in the Mechanical Engineering department at Iowa State University, with a dual minor in Plant Breeding and Computer Science.