

COMPSCI 4AL3

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ML Ops (Machine Learning Operations) is dedicated to the effective and dependable deployment and upkeep of machine learning models in production. Similar to DevOps, it has been tailored for machine learning and combines data engineering with techniques like continuous integration and delivery (CI/CD). Model development, deployment, monitoring, and feedback are all included in ML Ops, which makes sure models are regularly updated and function well in production.

By encouraging teamwork, automating processes, and facilitating continuous delivery, ML Ops simplifies the ML development process. It helps to resolve difficulties such as the non-sequential nature of ML pipelines and the difference in skill levels among stakeholders (for example, data scientists, engineers, and executives). By promoting automation and collaboration, ML Ops ensures that models are implemented faster, maintained more efficiently, and in accordance with business goals.

For example, ML Operations makes it easier to continuously test different models (such as content-based and collaborative filtering) in recommender systems. By tracking performance and user interaction over time, it enables the system to be retrained on a regular basis, guaranteeing that recommendations remain pertinent. This methodical, automated technique decreases operator involvement while improving model performance and scalability.