

	DevOps	MLOps
Focus	Software development and IT operations	Machine Learning model development and deployment
Goals	Automating and improving software delivery	Automating and improving ML model lifecycle
Primary Activities	Continuous Integration, Continuous Deployment	Model training, deployment, monitoring
Tools	CI/CD tools (Jenkins, GitLab), Configuration Mgmt	ML platforms (TensorFlow, PyTorch), Containers
Key Challenges	Code consistency, Environment management	Data versioning, Model drift, Data quality
Release Management	Frequent software releases	Iterative model updates and deployments
Monitoring	Application performance, Infrastructure metrics	Model performance, Data drift, Model accuracy
Testing	Unit, Integration, Acceptance testing	Data preprocessing, Model validation/testing
Deployment	Application deployment to servers	Model deployment to production environments
Scaling	Horizontal/Vertical scaling for apps	Scalable model training and serving
Collaboration	Collaboration between development and operations	Collaboration between data scientists and DevOps
Examples Of Tools	Jenkins, Docker, Kubernetes, Ansible	TensorFlow Serving, Kubeflow, MLflow