

# **MLOPS - MACHINE LEARNING OPERATIONS**

Training Curriculum

# MLOPS - MACHINE LEARNING OPERATIONS

---

## Module 1: Introduction to MLOps - Fundamentals and Architecture

- ✓ Introduction to MLOps concepts
- ✓ ML lifecycle stages
- ✓ MLOps maturity levels
- ✓ Platform architecture
- ✓ Business use cases across industries

## Module 2: Version Control and Experiment Tracking

- ✓ Git for ML projects
- ✓ DVC for data versioning
- ✓ MLflow experiment tracking
- ✓ Model registry
- ✓ Reproducibility best practices

## Module 3: ML Pipeline Development

- ✓ Building ML pipelines with Apache Airflow
- ✓ Kubeflow Pipelines
- ✓ Feature engineering automation
- ✓ Orchestration patterns

## Module 4: Containerization and Model Packaging

- ✓ Docker for ML
- ✓ Model serialization formats
- ✓ Container optimization
- ✓ Multi-stage builds
- ✓ Image management for ML workloads

# MLOPS - MACHINE LEARNING OPERATIONS

---

## Module 5: Model Deployment Strategies

- ✓ REST APIs
- ✓ Batch inference
- ✓ Real-time serving
- ✓ A/B testing
- ✓ Canary deployments
- ✓ Blue-green deployment patterns

## Module 6: CI/CD for Machine Learning

- ✓ GitHub Actions
- ✓ Jenkins
- ✓ GitLab CI for ML
- ✓ Automated testing
- ✓ Model validation pipelines
- ✓ Continuous training systems

## Module 7: Model Monitoring and Observability

- ✓ Data drift detection
- ✓ Model performance monitoring
- ✓ Alerting systems
- ✓ Logging best practices
- ✓ Observability platforms for ML

## Module 8: MLOps on Cloud Platforms

- ✓ Hands-on with AWS SageMaker
- ✓ Azure ML
- ✓ Google Vertex AI
- ✓ Feature stores
- ✓ Managed MLOps services for enterprise deployments

## Get In Touch

---



### **TechBrainz Consulting PVT.LTD**

HD-041 13th Floor, Salarpuria Sattva Magnificia,  
78, Old Madras Rd, near TIN Factory,  
Bengaluru, Karnataka 560016



### **Phone**

+91-9538 345 567



### **Email**

[trainings@techbrainz.com](mailto:trainings@techbrainz.com)



### **Website**

[www.techbrainz.com](http://www.techbrainz.com)