

AI Model Deployment with Docker & Kubernetes

COURSE OVERVIEW

This course provides practical training on how to deploy AI and machine learning models using Docker and Kubernetes. Participants will learn the fundamentals of containerization, building Docker images, and managing containerized applications with Kubernetes. The course covers best practices for packaging, scaling, and maintaining AI models in production environments. Delegates will acquire the necessary skills needed to automate deployment workflows, ensure model reliability, and manage infrastructure for scalable AI solutions.

WHO SHOULD ATTEND?

This course is ideal for machine learning engineers, data scientists, DevOps professionals, software developers, and AI practitioners who want to deploy and scale AI models in real-world environments. It is also an important course for IT infrastructure teams and technical project managers involved in managing AI workloads. Participants should have basic knowledge of Python, machine learning concepts, and familiarity with command-line tools.

COURSE OUTCOMES

Delegates will gain the knowledge and skills to:

- Explain how containerization works using Docker.
- Create and manage Docker containers for AI and ML models.
- Set up Kubernetes clusters to run and manage model deployments.
- Deploy, monitor, and scale AI applications effectively.
- Automate model deployment using CI/CD pipelines.
- Identify and resolve common deployment issues.
- Apply best practices for securing and maintaining deployed models.
- Build scalable and reliable AI workflows for real-world environments.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Introduction to containerization and Docker fundamentals.
- Building and managing Docker images for AI/ML models.
- Setting up and configuring Kubernetes clusters.
- Deploying and scaling AI models in production.
- Automating deployment with CI/CD pipelines.
- Monitoring and logging for deployed models.
- Managing version control and model updates.
- Best practices for security and resource optimization.
- Troubleshooting and debugging deployment issues.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded