

# **TensorFlow Mastery**

**Duration: 5 Days** 

### **Target Audience:**

- Data Analyst
- Business Analysts
- Data Scientist

### **Course Objectives:**

## **Mastering Advanced TensorFlow Techniques:**

- Build advanced models using Functional APIs
- Customize models and layers for specific requirements

### **Custom and Distributed Training:**

- Implement custom training procedures
- Learn distributed training techniques

#### **Advanced Computer Vision with TensorFlow:**

- Explore object detection techniques
- Dive into image segmentation methods

#### **Generative Deep Learning Exploration:**

- Apply Neural Style Transfer for artistic image generation
- Master Autoencoders and Variational Autoencoders for unsupervised learning and creative generation

#### **Course Outlines:**

#### **Enhancing TensorFlow Model Capabilities**

- > Build Functional APIs with TensorFlow
- > Build Custom Models with TensorFlow
- Build Custom Layers with TensorFlow
- Build Custom Loss Functions with TensorFlow
- Custom Callbacks with TensorFlow

# **Custom and Distributed Training with TensorFlow**

- Differentiation and Gradients
- Custom Training
- Graph Mode
- Distributed Training

# **Advanced Computer Vision with TensorFlow**

- Introduction to Computer Vision
- Object Detection
- Image Segmentation
- > Visualization & Interpretability

# Generative Deep Learning with TensorFlow

- Neural Style Transfer
- > AutoEncoders
- Variational AutoEncoders
- Generative Adversarial Network