INFOSOFT IT SOLUTIONS

Training | Projects | Placements

Revathi Apartments, Ameerpet, 1st Floor, Opposite Annapurna Block,

Infosoft It solutions, Software Training & Development Institute, **9059683947|9182540872**

Deep Learning with TensorFlow

Introduction to Deep Learning and TensorFlow

- Overview of Deep Learning
- Introduction to TensorFlow
- TensorFlow Architecture and Components

Foundations of Neural Networks

- Neural Network Basics
- Activation Functions
- Gradient Descent and Backpropagation
- Introduction to TensorFlow 2.x

Building and Training Neural Networks with TensorFlow

- TensorFlow Keras API
- Building Sequential and Functional Models
- Training and Evaluation
- Overfitting and Regularization

Convolutional Neural Networks (CNNs)

- Introduction to CNNs
- Building CNNs with TensorFlow

- Image Classification and Object Detection
- Transfer Learning

Recurrent Neural Networks (RNNs) and Long Short-Term Memory (LSTM)

- Introduction to RNNs and LSTMs
- Sequence Prediction and Language Modeling
- Time Series Analysis
- Building RNNs and LSTMs with TensorFlow

Autoencoders and Generative Adversarial Networks (GANs)

- Introduction to Autoencoders
- Building Autoencoders with TensorFlow
- Introduction to GANs
- Building GANs with TensorFlow

Reinforcement Learning with TensorFlow

- Introduction to Reinforcement Learning
- Q-Learning and Deep Q-Learning
- Building RL Agents with TensorFlow

Advanced Topics in Deep Learning

- Attention Mechanisms
- Transformer Architecture
- BERT and NLP Applications
- Graph Neural Networks

TensorFlow Serving and Deployment

- Model Deployment Strategies

- TensorFlow Serving

- Deploying TensorFlow Models on Cloud Platforms

Hands-on Projects and Case Studies

- Practical Applications of Deep Learning

- Real-world Case Studies

- Project Presentations

Additional Considerations:

- Guest Lectures or Industry Talks

- Hands-on Workshops and Labs

- Assessment Methods (Exams, Projects, Coding Assignments)